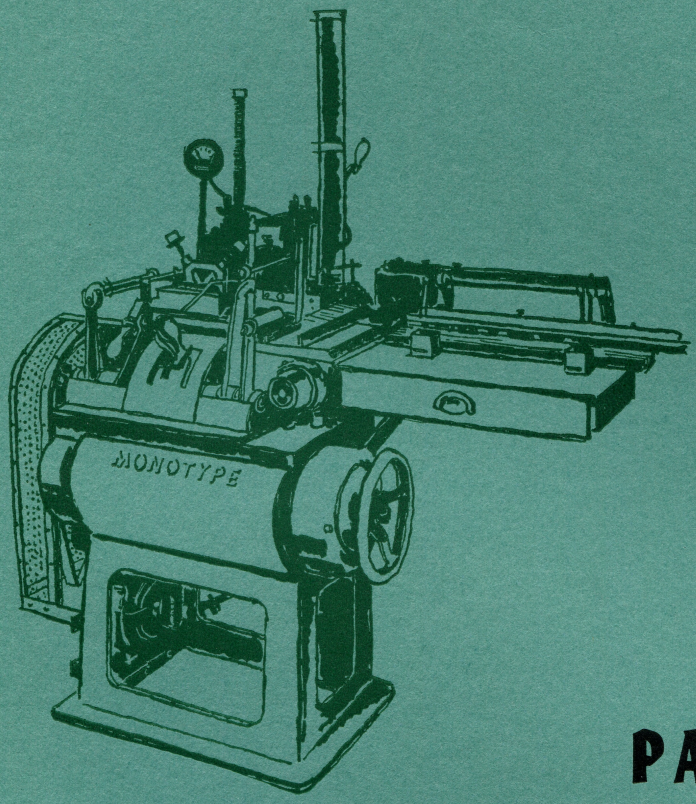


PARTS LIST

EFFECTIVE APRIL 1, 1952

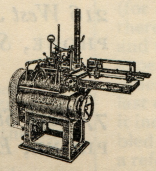
Monotype Material Making Machine

WITH A PREFACE *which gives directions for ordering parts and a simple explanation of our method of designating parts and the way they are arranged in this book.*

Lanston Monotype Machine Company, Philadelphia 3, Pennsylvania

Parts List

Monotype Material Making Machine



WITH A PREFACE *which gives directions for ordering parts and a simple explanation of our method of designating parts and the way they are arranged in this book.*

Lanston Monotype Machine Company

PHILADELPHIA

Lanston Monotype Machine Company

BRANCH OFFICES:

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PHILADELPHIA, PENNSYLVANIA	*Twenty-fourth at Locust Street* PHONE, *Locust 7-4614*

Set in Monotype Caslon Bold, No. 79; Binny Old Style, No. 21; Modern, No. 8 and Franklin Gothic, No. 107
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DIRECTIONS FOR ORDERING PARTS

(A Careful Reading Is Important)

All of these directions are essential. You will save time, trouble and money by reading them carefully before ordering any parts.

If you are not familiar with the Monotype terms here used, read "Designation of Parts" which follow these "Directions for Ordering Parts."

To enable us to fill orders correctly you must give us the following information:

(1) Give the number of the Machine for which the part is required (stamped on the Name Plate).

(2) Give the name of the part.

(3) Give the symbol of the part (give every character in the symbol exactly as printed—every one means something).

(4) Give the quantity required of each part.

(5) To order a complete Attachment for a Machine give the number of the Machine and the name of the Attachment.

DESIGNATION OF PARTS

(Name)	(Quantity)	(Classification Number)	(Symbol)
Cam-guard Screw	(3)	**2250**	a214E1

NAME: Shows that these Screws hold the Cam Guard in place.

QUANTITY: Three of these Screws; where no quantity is given "1" is understood.

CLASSIFICATION NUMBER: Standard pieces which may be used in several places under different symbols are given classifying numbers; those numbers beginning with **"1"** are bolts, **"2"** screws, **"3"** nuts, **"4"** washers, **"5"** dowels, **"6"** springs, **"7"** rivets, **"8"** spring pins and posts, **"9"** cotters. All pieces having the same classification number are alike without regard to what their symbols may be.

SYMBOL: Identifies and locates the part. The letter "E" indicates that these Screws are in the "E" section (the entire machine being divided into four sections lettered "A", "E", "F" and "H"). The figure 214 preceding the letter indicates that these Screws are in group No. 214 of this section (the groups comprising each section being numbered). The figure 1 following the letter indicates that these Screws are the first piece of this group (the individual pieces comprising each group being numbered consecutively). If a lower-case letter precedes the first figure in the symbol (for example, Cam Shaft b204E1) it indicates there have been one or more changes in the piece and the new piece is not interchangeable with the superseded one without changing or altering other parts. If the section letter is repeated as the last character of the symbol (for example 57A1A) it indicates that this piece is furnished only assembled with one or more other pieces, in which case a reference mark and a note at the end of the group gives details for the assembly. When a cap "X" is the first character of a symbol (for example, X86F), it calls for the complete group as listed above it.

CONTENTS

Section A

Mechanism for carrying the matrix and holding it on the opening in the mold while the product is being cast.

55A—Bridge **55A1**

56A—Bridge Support (3) 56A1
nut (3) ..... **319** .. 56A2
BRIDGE SUPPORT group **X56A**

For Logotype Attachment see page 11.
For 36-Point Attachment see page 12.

57A—Matrix Carrier ..... 57A1A *
plate (2) ..... 57A2 *
" rivet (3) ..... **7180** .. 57A3
MATRIX CARRIER group **X57A**
*57A1A is assembled with 57A2 and 57A3. Order by the complete symbol X57A.

58A—Matrix-carrier Pin ..... **7232** .. **58A1**

59A—Matrix-carrier Toggle Link
(lower) a59A1
(upper) ..... a59A2A *
pin (center) 59A3
" (upper) 59A5
" cotter (2) ..... **95** .. 59A6
spring (in a59A2A) ..... **7237** .. a59A7
MATRIX-CARRIER TOGGLE LINK group ... **X59A**
*a59A2A is assembled with a59A7.

Machines prior to 8023 were equipped with the following parts:
MATRIX-CARRIER TOGGLE LINK
(lower 59A1
(upper) 59A2A
spring (in a59A2A) ..... **7235** .. 59A7
NOTE: These parts are obsolete and will no longer be furnished. Order instead the improved parts.

60A—Matrix-carrier-toggle-link Adjusting Sleeve 60A1
lock nut ..... **394** .. 60A2
MATRIX-CARRIER-TOGGLE-LINK ADJUSTING SLEEVE group **X60A**

61A—Matrix-carrier-toggle-link Supporting Rod 61A1
eye 61A2
nut ..... **320** .. 61A3
" lock nut ..... **320** .. 61A5
MATRIX-CARRIER-TOGGLE-LINK SUPPORTING ROD group **X61A**

63A—Matrix-carrier-toggle-link Operating Rod 63A1
ball extension 63A11
ball socket (front) 63A2
" " (rear) 63A3
" " guard 63A10
eye 63A4
" lock nut ..... **310** .. 63A5
nut ..... **310** .. 63A6
" lock nut ..... **312** .. 63A7
spring ..... **6250** .. a63A8
" abutment (2) a63A14
sleeve (outer) a63A13
" (inner) (2) a63A15
MATRIX-CARRIER-TOGGLE-LINK OPERATING ROD group **X63A**

Machines prior to 9450 were equipped with the following parts:
MATRIX-CARRIER-TOGGLE-LINK OPERATING ROD
spring ..... **6191** .. 63A8
washer ..... **461** .. 63A9
and omitted a63A13, a63A14 and a63A15.
NOTE: These parts are obsolete and will no longer be furnished. Order instead the improved parts a63A8, a63A13, a63A14 and a63A15. The improved parts provide an improved and stronger spring action and must be furnished together when ordered for the first time.

64A—Mold Oiler 64A1
arm 64A2
" stud ..... 64A3A *
" " pin ..... **7206** .. 64A4
" " nut ..... **35** .. 64A5
" " washer ..... **419** .. 64A8
pipe 64A6
lock nut 64A7
MOLD OILER group **X64A**
*64A3A is assembled with 64A4.

65A—Mold-oiler Support **65A1**

Section E

Mechanism for receiving power from the belt and transmitting it to the various portions of the machine; also the electric wiring, conduits, etc. for the Motor.

197E—Name Plate a197E4
screw (4) ..... **2279** .. 197E2
NAME PLATE group **Xa197E4**

198E—Base **198E1**

199E—Belt Tightener Pulley ..... b199E1E *
arm 199E2
bushing (oilless wood) a199E6
stud b199E3
" nut ..... **326** .. 199E4
BELT TIGHTENER PULLEY group **Xa199E**
*b199E1E is assembled with a199E6.

Machines prior to 8713 were equipped with the following parts:
BELT TIGHTENER PULLEY a199E1
stud a199E3
oiler 199E5
and omitted a199E6.
NOTE: The improved PULLEY b199E1E is interchangeable with the PULLEY a199E1 and should be ordered in place of it.

200E — Belt - tightener - pulley - arm Spring ..... **6235** .. **200E1**

201E—Cam-lever-fulcrum-pin Stand .. b201E1
oiler 201E2
" pipe a201E4
guard 201E3
CAM-LEVER-FULCRUM-PIN STAND group .. **Xa201E**

Machines prior to 11656 were equipped with the following part:
CAM-LEVER-FULCRUM-PIN STAND a201E1
NOTE: This part is obsolete and will no longer be furnished. Order instead the improved part and with it order two a202E2 and alter d218E1, adding two 5-16″-18 tapped holes.

Machines prior to 8763 were not equipped with the following part:
CAM-LEVER-FULCRUM-PIN STAND
oiler pipe a201E4
NOTE: This PIPE raises the OILER 201E2 to a more accessible position.

202E — Cam-lever-fulcrum-pin-stand Screw (8) ..... **29** .. **202E1**

Machines 11656 and following were equipped with the following part:
CAM-LEVER-FULCRUM-PIN-STAND SCREW (2) ..... **216** .. a202E2

204E—Cam Shaft b204E1
collar (between pump cam and small gear) 204E2
" (" matrix-carrier cam and large gear) 204E3
gear (large) 204E4
" (medium) a204E5
" (small) a204E6
key (long) 204E7
CAM SHAFT is furnished complete with the following parts in place: Xb205E, a206E1, X226E, Xa233E, 239E1 and X246E. **Xb204E**
NOTE: Should it be necessary to replace any GEAR or CAM (except the CUTTER CAMS) the SHAFT Xb204E must be returned to our factory.

Machines prior to 7835 were equipped with the following parts:
CAM SHAFT a204E1
gear (medium) 204E5
" " (small) 204E6

205E—Cutter Cam
(left) 205E1
(right) 205E2
bushing b205E3
CUTTER CAM group **Xb205E**
NOTE: CUTTER CAMS may be shipped for application to Machines 7835 and following if assembled on the BUSHING b205E3 with the KEYS a206E1.

Machines prior to 7835 were equipped with the following parts:
CUTTER CAM
bushing a205E3
key (cams to bushing) 205E5

205E—Cutter Cam (continued)

NOTE: CUTTER CAMS 205E1 and 205E2 may be shipped for application to Machines prior to 7835 if assembled on the BUSHING a205E3 with the KEY 205E5. To secure this assembly to the DRIVING SHAFT furnish:
CUTTER-CAM KEY 206E1

206E—Cutter-cam Key (cams and bushing to Shaft) (2) **a206E1**

Machines prior to 7835 were equipped with the following part:
CUTTER-CAM KEY 206E1

207E—Cutter-cam Lever ..... 207E1E *
pawl ..... b207E2E †
" finger a207E3
" " screw ..... **2222** .. a207E4
" " spring ..... **632** .. a207E15
" fulcrum pin (head operates Rock Shaft) 207E5
" " " cotter ..... **94** .. 207E6
" spring ..... **612** .. 207E7
" " post ..... **834** .. 207E8
roller (2) ..... a207E9E ‡
" bushing (2) ..... a207E14 ‡
" pin (2) 207E10
" " cotter (2) ..... **94** .. 207E11
" " washer (2) 207E12
spring post (for Pawl Spring) ..... **891** .. 207E13
CUTTER-CAM LEVER group **X207E**
*207E1E is assembled with a207E9E, 207E10, 207E11, 207E12 and 207E13.
†b207E2E is assembled with 207E8.
‡a207E9E is assembled with a207E14.

In addition to the above parts, Machines 8373 and following are equipped with the following part:
CUTTER-CAM LEVER PAWL FINGER a207E16
NOTE: This part (applied in place of a207E3), together with the SHEAR-BLADE-GUIDE STOP 179F1, is used for cutting short lengths, and insures that the short lengths will be held between the TRANSFER BARS. The two parts a207E16 and 179F1 may be ordered for, and applied to prior machines at any time.

Machines prior to 8353 (except 7845, 7857, 8338 and 8341, for which see X207E were equipped with the following part:
CUTTER-CAM LEVER PAWL FINGER SCREW ..... **233** .. 207E4
and omitted a207E15.

Machines prior to 7835 were equipped with the following parts:
CUTTER-CAM LEVER PAWL 207E2E
finger 207E3
NOTE: The improved parts are interchangeable with the old if ordered together.

Machines prior to 7835 (except 7775, 7777, 7778 and 7782, for which see X207E) were equipped with the following part:
CUTTER-CAM LEVER ROLLER (2) 207E9
and omitted a207E14.
NOTE: This part will no longer be furnished. Order instead a207E9E which is interchangeable with it.

208E—Cutter-cam-lever Fulcrum Stud 208E1
nut ..... **330** .. 208E2
washer ..... **462** .. 208E3
CUTTER-CAM-LEVER FULCRUM STUD group. **X208E**

209E—Driving Shaft ..... 209E1E *
collar 209E2
" pin ..... **7233** .. 209E3
nut ..... **332** .. 209E4
DRIVING SHAFT group **X209E**
*209E1E is assembled with 209E2 and 209E3

210E—Driving-shaft Sliding Gear **210E1**

211E—Driving-shaft-sliding-gear Key .. **211E1**

212E—Driving-shaft Key (for Pulley) ... **212E1**

213E—Cam Guard **a213E1**

Machines prior to 7835 were equipped with the following part:
CAM GUARD 213E1
NOTE: This part is obsolete and will no longer be furnished. Order instead the improved part.

214E—Cam-guard Screw (3).....**2250**.. **a214E1**

Machines prior to 7835 were equipped with the following part:

CAM GUARD SCREW (3).....**2245**.. 214E1

NOTE: This part is obsolete and will no longer be furnished. Order instead the improved part.

215E—Hand Wheel..... **215E1**

216E—Hand-wheel Key..... **216E1**

217E—Hand-wheel Nut.....**329**.. **a217E1**

Machines prior to 7835 were equipped with the following part:

HAND-WHEEL NUT..... 217E1

218E—Main Stand..... d218E1
oil retaining cap..... b218E10
" " " screw (3).....**233**.. a218E14
bearing (for 209E1)..... b218E3
" clamp (2)..... b218E4
" " screw.....**148**.. a218E5
" " " nut.....**319**.. a218E6
oiler (for 209E1 and b204E1) (2)..... a218E7
pipe plug (1-4″)..... 218E2
service elbow..... a218E9
spring post (for 200E1).....**8114**.. a218E8
register plate..... a218E12
" " screw (2).....**2279**.. a218E13
MAIN STAND group.....**Xd218E**

Machines equipped with the old style two-step pulley 253E1 require special oil retaining cap a218E10 and three (3) screws 218E14, No. 2203.

Machines prior to 11049 (except 10992 to 10995 inclusive), were equipped with the following parts:

MAIN STAND
bearing (for 209E1)..... a218E3
" clamp (2)..... a218E4

NOTE: The corresponding improved parts are interchangeable with these older parts if ordered together. The new parts provide a self-aligning bearing.

Machines 8063 to 10986 were equipped with the following part:

MAIN STAND..... c218E1

Machines 7835 to 8062 inclusive were equipped with the following part:

MAIN STAND..... b218E1

Machines prior to 7835 were equipped with the following part:

MAIN STAND..... a218E1
and omitted a218E3 to a218E9 inclusive.

Machines prior to 7835 were equipped with the following parts:

219E—Main-stand Bearing (left) (for Cam Shaft)..... 219E1
oiler..... 219E2
spring post (for 200E1).....**894**.. 219E3
MAIN-STAND BEARING group.....**X219E**

NOTE: These parts are obsolete and will no longer be furnished.

220E—Main-stand Bearing (for Cam Shaft) (right)..... a220E1
oil pipe..... 220E2
MAIN-STAND BEARING group.....**Xa220E**

Machines prior to 10986 were equipped with the following part:

MAIN-STAND BEARING (for Cam Shaft).... 220E1

NOTE: To apply the improved part requires that d218E1 and a220E1 be ordered together. The object of the change is improved construction.

Machines prior to 7835 were equipped with the following parts:

221E—Main-stand Bearing (right) (for Drive Shaft)..... 221E1
oiler..... 221E2
MAIN-STAND BEARING group.....**X221E**

NOTE: These parts are obsolete and will no longer be furnished.

Machines prior to 7835 were equipped with the following part:

222E—Main-stand-bearing Screw (for 219E1) (6).....**28**.. **222E1**

223E—Main-stand-bearing Screw (for 220E1) (3).....**29**.. **223E1**

Machines prior to 7835 were equipped with the following part:

224E—Main-stand-bearing Screw (for 221E1) (3).....**29**.. **224E1**

225E—Main-stand Bolt (4).....**147**.. **225E1**

226E—Matrix-carrier Cam
(left)..... 226E1
(right)..... 226E2
MATRIX-CARRIER CAM group.....**X226E**

NOTE: When a CAM is to be replaced the SHAFT complete with its CAMS must be returned to our factory.

227E—Matrix-carrier-cam Lever..... 227E1E *
clamp screw.....**112**.. 227E3
roller (2)..... a227E4E †
" bushing (2)..... a227E8 †
" pin (2)..... 227E5
" " cotter (2).....**94**.. 227E6
" " washer (2)..... 227E7
MATRIX-CARRIER-CAM LEVER group.....**X227E**

*227E1E is assembled with 227E3, a227E-4E, 227E5, 227E6, and 227E7. Order by the complete symbol X227E.
†a227E4E is assembled with a227E8.

Machines prior to 7835 (except 7775, 7777, 7778 and 7782 for which see above) were equipped with the following part:

MATRIX-CARRIER CAM LEVER ROLLER (2). 227E4
and omitted a227E8.

NOTE: This part will no longer be furnished Order instead a227E4E which is interchangeable with it.

228E—Matrix-carrier-cam-lever Fulcrum Pin..... **a228E1**

229E—Matrix-carrier-cam-lever-fulcrum-pin Set Screw..... **229E1**

230E—Mold-blade Bell Crank..... a230E1E *
bushing..... 230E2 *
MOLD-BLADE BELL CRANK group.....**Xa230E**

*a230E1E is assembled with 230E2. Order by the complete symbol Xa230E.

231E—Mold-blade-bell-crank Adj. Stud
.....**146**.. 231E1
nut.....**319**.. 231E2
MOLD-BLADE-BELL-CRANK ADJ. STUD group.**X231E**

232E—Mold-blade-bell-crank Stud.... 232E1
nut (lower).....**330**.. 232E2
" (upper).....**329**.. 232E3
washer.....**465**.. 232E4
MOLD-BLADE-BELL-CRANK STUD group...**X232E**

233E—Mold-blade Cam
(left)..... a233E1
(right)..... a233E2
MOLD-BLADE CAM group.....**Xa233E**

NOTE: When a CAM is to be replaced the SHAFT complete with the CAMS must be returned to our factory.

Machines prior to 11615 (except 11402 and 11532) were equipped with the following parts:

MOLD-BLADE CAM
(left)..... 233E1
(right)..... 233E2

234E—Mold-blade-cam Lever..... 234E1E *
ball pin..... 234E3
" " cotter (2).....**95**.. 234E4
roller (2)..... a234E5E †
" bushing (2)..... a234E9 †
" pin (2)..... 234E6
" " cotter (2).....**94**.. 234E7
" " washer (2)..... 234E8
MOLD-BLADE-CAM LEVER group.....**X234E**

*234E1E is assembled with a234E5E, 234E6, 234E7 and 234E8.
†a234E5E is assembled with a234E9.

Machines prior to 7835 (except 7775, 7777, 7778 and 7782 for which see above) were equipped with the following part:

MOLD-BLADE-CAM LEVER ROLLER (2)..... 234E5

NOTE: This part will no longer be furnished. Order instead a234E5E which is interchangeable with it.

235E—Mold-blade-cam-lever Fulcrum Pin..... a235E1
cotter.....**92**.. 235E2
washer (for Pump-cam Lever)....**444**.. 235E3
MOLD-BLADE-CAM-LEVER FULCRUM PIN group.....**Xa235E**

236E—Mold-blade-cam-lever-fulcrum-pin Set Screw..... **236E1**

237E—Mold-blade Operating Rod..... 237E1
coupling..... 237E2 *
" screw..... 237E3
micrometer wedge (2)..... a237E4
" " rod (2)..... a237E5
" " " head (2)..... 237E6
" " " " lock nut (2).....**33**.. 237E7
" " spring (2).....**635**.. 237E8
" " adj. screw (2)..... 237E9
" " " " head (2)... 237E10
" " " " lock nut (2)....**324**. 237E11
" " stand (bottom)..... 237E12
" " " screw (to Main Stand) (5)**227** 237E13
" " " dowel (2)..**56**.. 237E14
" " " (top)..... 237E15
" " " screw (to 237E12) (6)....**223**.. 237E16
MOLD-BLADE OPERATING ROD group....**X237E**

*For 36 Point Attachment use MOLD-BLADE OPERATING ROD coupling..... a237E18

Machines prior to 8333 were equipped with the following parts:

MOLD-BLADE OPERATING ROD
micrometer wedge (2)..... 237E4
" " rod (2)..... 237E5

NOTE: These parts are obsolete and will no longer be furnished. Order instead the improved parts a237E4 and a237E5 These improved parts must be ordered together when ordered for the first time.

238E—Mold-blade Spring Box
rod..... 238E1E *
" adjusting nut.....**314**.. 238E2
" " " lock nut.....**315**.. 238E3
" head..... 238E4 *
" socket..... a238E5E †
" " ball..... 238E18
" " cap..... 238E6 †
" " " screw (2).....**226**.. a238E7
" " " nut (2).....**310**.. a238E20
" " " " " lock nut (2).**312**. a238E21
" " lock nut.....**314**.. 238E8
spring (inside).....**6282**.. a238E9
" (outside).....**6229**.. 238E10
" abutment (front)..... 238E11
" " (rear)..... 238E12
tube..... 238E13
" cap (rear)..... 238E14
" socket (front)..... 238E15E ‡
" " ball..... 238E19
" " cap..... 238E16 ‡
" " " screw (2).....**222**.. 238E17
MOLD-BLADE-SPRING BOX group.....**Xa238E**

*238E1E is assembled with 238E4.
†a238E5E is assembled with 238E6, a238E7, 238E18, a238E20, and a238E21.
‡238E15E is assembled with 238E16, 238E17, 238E19.

Machines prior to 11897 were equipped with the following part:

MOLD-BLADE SPRING BOX SPRING
(inside).....**6230**.. 238E9

NOTE: The new SPRING a238E9 is interchangeable.

Machines prior to 7840 (except 7777, 7778 and 7782 for which see Xa238E) were equipped with the following parts:

MOLD-BLADE SPRING BOX
rod socket..... 238E5E
" screw (2).....**222**.. 238E7

NOTE: These parts are obsolete and will no longer be furnished. The improved parts provides NUTS and LOCK NUTS for the SCREW.

239E—Mold-closure Cam..... **239E1**

NOTE: When a CAM is to be replaced, the SHAFT complete with its CAMS must be returned to our factory.

240E—Mold-closure-cam Lever..... 240E1
pin (bearing on cam)..... 240E2
" nut.....**319**.. 240E3
MOLD-CLOSURE-CAM LEVER group.....**X240E**

Machines 11803 and following were equipped with the following parts:

MOLD-CLOSURE CAM LEVER OIL WICK.... a240E4 *
holder..... a240E5E *

*a240E5E is assembled with a240E4.

NOTE: These parts may be applied to previous machines if furnished together.

241E—Mold-closure Operating Rod.... a241E1
bracket..... 241E2
" head..... a241E3
spring..... a241E8
nut..... b241E6
" lock nut.....**318**.. a241E7
MOLD-CLOSURE OPERATING ROD group.**Xb241E**

Machines prior to 11897 were equipped with the following part:
MOLD-CLOSURE OPERATING ROD SPRING .....**6231**.. 241E4
In place of a241E8.

Machines prior to 8373 (except 8338 for which see Xa241E) were equipped with the following parts:
MOLD-CLOSURE OPERATING ROD..... 241E1
bracket head..... 241E3
washer.....**463**.. 241E5
nut.....**310**.. 241E6
" lock nut.....**312**.. 241E7
NOTE: The improved ROD is of a larger diameter and fitted with a graduated NUT. To apply the improved parts alter the CAM LEVER 240E1. If it is desired to apply only the graduated NUT to the old ROD, order the NUT a241E6.

242E — Mold - closure - operating - rod - bracket Screw (4).....**216**.. **242E1**

243E—Motor-base Block
(left)..... b243E1
(right)..... b243E2
bolt (carriage bolt) (4)..... 243E6
" washer (4).....**412**.. 243E7
rod bolt (2)..... a243E3
" " nut (4).....**327**.. 243E4
" " washer (4).....**45**.. 243E5
MOTOR-BASE BLOCK group.....**Xb243E**

Machines 10141 to 13063 were equipped with the following parts:
MOTOR BASE-BLOCK
(left)..... a243E1
(right)..... a243E2
NOTE: The improved parts are interchangeable with old parts if ordered together.

Machines prior to 10141 were equipped with the following parts:
MOTOR-BASE BLOCK
(left)..... 243E1
(right)..... 243E2
rod bolt (2)..... 243E3
NOTE: The improved parts are interchangeable with old parts if ordered together.

244E—Pulley Guard (for 20″ Pulley a253E2)..... a244E5
stud (3)..... 244E2
" nut (6).....**319**.. 244E3
" washer (6).....**49**.. a244E4
PULLEY GUARD group.....**Xa244E5**

Machines prior to 11897 were equipped with the following part:
PULLEY GUARD (for Pulley 253E1)..... 244E1

246E—Pump Cam
(left)..... 246E1
(right)..... 246E2
PUMP CAM group.....**X246E**
NOTE: When a CAM is to be replaced the SHAFT complete with its CAMS must be returned to the factory.

247E—Pump-cam Lever..... 247E1E *
pin (guide for 68H1)..... 247E2
" washer (2).....**464**.. 247E3
" cotter (2).....**93**.. 247E4
roller (2)..... a247E5E †
" bushing (2)..... a247E9 †
" pin (2)..... 247E6
" " cotter (2).....**94**.. 247E7
" " washer (2)..... 247E8
PUMP-CAM LEVER group.....**X247E**
*247E1E is assembled with a247E5E, 247E6, 247E7, and 247E8.
†a247E5E is assembled with a247E9.

Machines prior to 7835 (except 7775, 7777, 7778 and 7782, for which see column one) were equipped with following parts:
PUMP-CAM-LEVER ROLLER (2)..... 247E5
NOTE: This part will no longer be furnished. Order instead a247E5E which is interchangeable with it.

248E—Tumbler..... a248E1
idler gear (large)..... 248E2
" " (small)..... 248E3
" " key (No. 11 Woodruff)..... 248E4
" " shaft..... 248E5
latch..... a248E6
" fulcrum pin..... 248E7
" " " cotter (2).....**95**.. 248E8
" spring.....**6263**.. a248E9
oil guard..... 248E11
" " screw.....**241**.. 248E12
TUMBLER group.....**Xa248E**

Machines prior to 11656 were equipped with the following part:
TUMBLER LATCH..... 248E6E
NOTE: This part will no longer be furnished, the improved part is interchangeable if the TUMBLER INDEX COVER b249E1E is applied.

Machines prior to 8053 were equipped with the following parts:
TUMBLER..... 248E1
latch spring.....**6153**.. 248E9
NOTE: The improved parts provide for a stronger spring, and must be furnished together when ordered for the first time or 248E1 may be altered to take the stronger SPRING a248E9.

249E—Tumbler Index Cover..... b249E1E *
stop pin (4)..... a249E2 *
*b249E1E is assembled with a249E2.

Machines prior to 11656 were equipped with the following part:
TUMBLER INDEX COVER..... a249E1
NOTE: This part will no longer be furnished. Order instead the improved COVER b249E1E and LATCH a248E6.

Machines prior to 7835 were equipped with the following part:
TUMBLER INDEX COVER..... 249E1
NOTE: This part will no longer be furnished. Order instead the improved COVER b249E1E and LATCH a248E6.

250E — Tumbler - index - cover Screw (large) (2).....**29**.. **250E1**

251E—Tumbler-index-cover Screw (small) (2).....**223**.. **251E1**

For Logotype Attachment see page 11.
For 36 Point Attachment see page 12.

252E—Mold Holder
base plate..... c252E1E *
" " nozzle seat (give thickness)... 252E2
" " screw (to main stand) (4) **144**. 252E3
" " " washer (4).....**412**.. 252E4
" " " (to bracket 241E2) (2) **145**.. 252E5
" " " washer (2).....**412**.. 252E6
bolster (front)..... 252E8E †
" bushing (for clamp pin)..... 252E9 †
" clamp pin..... 252E10
" " " adjusting screw **2247**.. 252E11
" " " spring.....**6155**.. 252E12
" elbow (2)..... 252E13E ‡
bolster elbow sleeve (2)..... 252E58
" " nut (2)..... 252E59
" plug screw 1-4″ (3).....**2248**.. 252E14
" " " 5-16″ (2).....**2249**.. 252E15
" screw (to base) (2).....**142**.. 252E16
" " washer (2).....**410**.. 252E17
" (rear)..... 252E18E §
" elbow (2)..... 252E19E ‖
" " sleeve (2)..... 252E60
" " nut (2)..... 252E61
" plug screw 1-4″ (3).....**2248**.. 252E20
" " " 5-16″ (2).....**2249**.. 252E21
" screw (to base) (2).....**142**.. 252E22
" " washer (2).....**410**.. 252E23
gage plate (2)..... a252E24
" " screw (4).....**241**.. a252E25
matrix guide (front)..... 252E28
" " " washer (2).....**410**.. 252E30
" " (rear)..... 252E31
" " screw (to base) (2)..**142**.. 252E32
" " " washer (2)....**410**.. 252E33
mold closure..... b252E34 **
" " guide plate (left)..... b252E35 **
" " " " (right)..... c252E36 **
" " " " abutment (2)... a252E62
" " " " " screw (4) **241** a252E63
" " " " clamp..... b252E56
" " " " " screw (2) **2166**.. a252E57

252E—Mold Holder (continued)
mold closure stop plate (rear)..... b252E38E **
" " " " wedge..... a252E65
" " " " abutment..... 252E39
" " shoe..... 252E40
" " " screw (2).....**233**.. 252E41
through bolt (short) (2).....**141**.. 252E42
" " nut (2).....**314**.. 252E43
" " washer (4).....**466**.. 252E44
" " (long) (2).....**143**.. 252E45
" " nut (2).....**314**.. 252E46
" " washer (4).....**466**.. 252E47
thrust bar (2)..... 252E48
" " adj. screw (2)..... 252E49
" " " " lock nut (2)...**310** 252E50
MOLD HOLDER group.....**Xc252E**
*c252E1E is assembled with 252E2, 252E8E, 252E10, 252E11, 252E12, 252E16, 252E17, 252E18E, 252E22, 252E23, a252E24, a252E25, 252E28 to 252E33 inclusive, b252E38E, 252E39 to 252E50 inclusive, b252E56, a252E57, a252E62, a252E63, and a252E65.
†252E8E is assembled with 252E9, 252E14, 252E13E, and 252E15.
‡252E13E is assembled with 252E58 and 252E59.
§252E18E is assembled with 252E19E, 252E20, and 252E21.
‖252E19E is assembled with 252E60 and 252E61.
**b252E38E consists of b252E34, b252E35, c252E36 and a252E38.
The right or left GUIDE PLATES, c252-E36 and b252E35, cannot be furnished separately from the ASSEMBLY.
If an individual CLOSURE, b252E34, or STOP PLATE, a252E38, is wanted be sure to give width and thickness of old part to four decimal places.
Machines prior to Feb. 1939 were equipped with STOP PLATE ASSEMBLY a252E-38E including CLOSURE a252E34. The new parts cannot be applied to those machines unless the new MOLD HOLDER c252E1E is applied or the old MOLD-HOLDER BASE PLATE b252E1E is altered at our factory.
NOTE: Because efficient cooling is essential it is advisable to return to our factory Bolsters in which the waterway have become clogged for cleaning and regrinding.

Machines prior to April, 1939, were equipped with Nozzle Shield 252E53 and its four screws a252E54. This Nozzle Shield has been superseded by:
NOZZLE SHIELD..... X88H*
*This Nozzle Shield may be applied to any previous machine provided Nozzle Seat Shield 252E53 is taken off.

253E—Pulley (20″ diameter)..... **a253E2**

Machines prior to 11897 were equipped with the following part:
PULLEY (2-step, 14″ and 15″ Dia.)..... 253E1

255E—Index Plate..... a255E1
screw (2).....**251**.. 255E2
INDEX PLATE group.....**Xa255E**

Machines prior to 11897 were equipped with the following part:
INDEX PLATE..... 255E1

256E—Oil Guard..... b256E1E *
clip (2)..... b256E2
" rivet.....**7223**.. 256E3
" screw.....**2203**.. 256E4
" " nut.....**35**.. 256E5
OIL GUARD group.....**Xb256E**
*b256E1E is assembled with one of b256E2 and 256E3.

Machines 7835 to 8062 inclusive were equipped with the following parts:
OIL GUARD..... a256E1E *
clip (2)..... a256E2
*a256E1E is assembled with one of a256E2 and 256E3.

Machines prior to 7835 were equipped with the following parts:
OIL GUARD..... 256E1E *
clip..... 256E2
*256E1E is assembled with one of 256E2 and 256E3.

257E—Mold-blade-bell-crank Guard .. **257E1**

258E—Condulet Body 258E1
screw (2) ..... **222** .. 258E2
" washer (4) ..... **415** .. 258E3
set screw (5-16" long, brass, 10-32) (2) .. 258E4
CONDULET 258E6
screw (2) ..... **223** .. 258E7

Machines prior to 8333 were equipped with the following parts:
CONDULET BODY 3-4" 258E13
porcelain cover (4-hole) 258E20
screw ..... **223** .. 258E14
and omitted a258E22 to a258E26 incl.
NOTE: The added parts extended the conduit to the motor base, and are not required when new motor equipment is furnished.

SNAP SWITCH ..... a258E8E *
handle a258E28
screw (2) ..... **2378** .. a258E29
*a258E8E is assembled with a258E28 and a258E29.

Machines prior to 10716 were equipped with the following parts:
SNAP SWITCH ..... 258E8E *
handle 258E28
protective cover 258E21
condulet body adapter 258E5
and omitted a258E29.
*258E8E is assembled with 258E28.
NOTE: These parts can no longer be furnished. Order instead the new style SNAP SWITCH a258E8E and its two SCREWS a258E29 and discard the CONDULET BODY ADAPTER 258E5.

CUT OUT (30 Amp.) (2) 258E9
screw (3-16" buttonhead stove bolt, 1-2" long with nut) (4) 258E10
CONDUIT (3-4" single flexible steel (18 3-4") 258E11
CONDUIT (3-4" single flexible steel (34 1-2") 258E12
CONDUIT FITTING (3-4" single flexible steel conduit fitting regular type) (2) 258E15
V. V. PIPE STRAP 3-4" 258E16
screw ..... **227** .. 258E17
" washer ..... **413** .. 258E27
No. 14 INSULATED WIRE, 60" (4) 258E18
38" (4) 258E19
UTILITY BOX a258E22
cover a258E23

Machines 8333 to 10139 inclusive were equipped with the following parts:
UTILITY BOX extension a258E24
screw (2) ..... **231** .. a258E25
screw (2) ..... **237** .. a258E26
NOTE: Later machines do not require these parts as they have been incorporated in the motor. Earlier machines will not require these parts when equipped with a new motor.

277E, 278E and **279E**—*(See page 12)*

283E—Rotation Arrow 283E1

Section F

Mechanism for receiving product from Mold, cutting it into lengths, and assembling it on Galley.

77F—Channel Bar (for leads and rules) .. a77F1
screw (2) ..... **227** .. 77F2
support (for long strips) a77F3
" screw a77F4
CHANNEL BAR group **Xa77F**

78F—Galley ..... a78F1 *
support bar (2) ..... a78F4F *
" " rivet (5) ..... **7207** .. 78F3
" " washer(2) ..... **415** .. a78F6
GALLEY group **Xa78F4**
*a78F4F is assembled with a78F1 and 78F3.

83F—Shear Blade **a83F2**
For 18 Point Attachment use SHEAR-BLADE a83F3

Machines prior to 7838 (except 7777, 7778, 7782 and 7835 for which see above) were equipped with the following part:
SHEAR BLADE 83F1

84F—Shear-blade Guide **84F1**
For 18 Point Attachment use SHEAR-BLADE GUIDE a84F2

85F—Shear-blade Shoe ..... 85F1 *
screw (4) ..... **234** .. 85F2
tube ..... a85F5F *
" dowel ..... **535** .. a85F4 *
" spring post ..... **8112** .. a85F6
" " " nut ..... **33** .. a85F7
SHEAR-BLADE SHOE group **Xa85F5**
*a85F5F is assembled with 85F1 and a85F4.

Machines prior to 11820 were not equipped with the following part:
SHEAR-BLADE-SHOE-TUBE POST (for weight cord) a85F8

86F—Shear-blade-shoe-tube Clamp
(upper) a86F1
(lower) a86F3
screw ..... **140** .. 86F2
SHEAR-BLADE-SHOE-TUBE CLAMP group .. **X86F**

87F—Shear-blade-shoe-tube Guide 87F1
screw (2) ..... **2207** .. 87F2
SHEAR-BLADE-SHOE-TUBE GUIDE group .. **X87F**

88F—Shear Gage ..... 88F1F *
adjusting nut (outside) a88F5
" " sleeve (inside) a88F6
lug 88F2
" latch 88F3
" pin ..... **7161** .. 88F4
SHEAR GAGE group **X88F**
*88F1F is assembled with 88F2 and 88F4.

89F—Shear-gage Spring ..... **6237** .. **a89F1**

90F—Stacker Plate ..... b90F8F *
support (right) ..... 90F2 *
" rivet (2) ..... **7216** .. 90F3
" (left) ..... 90F6 *
" rivet (2) ..... **7218** .. 90F7
STACKER PLATE group **Xb90F8**
*b90F8F is assembled with 90F2, 90F3, 90F6 and 90F7 Order by complete symbol Xb90F8.

Machines prior to 7868 were equipped with the following part:
STACKER PLATE ..... a90F8F *
*a90F8F is assembled with 90F2, 90F3, 90F6 and 90F7.
NOTE: The improved part which is designed to prevent leads from catching when stacking short lengths can be applied by cutting clearance in CUTTER BRACKET 151F1F.

91F—Stacker Rock Shaft b91F2
link (2) a91F4
" pin (2) a91F5
" " cotter (2) ..... **95** .. a91F6
STACKER ROCK SHAFT group **Xb91F2**

92F—Stack Support Block 92F1
shoe (leather) 92F2
" screw (4) ..... **244** .. 92F3
STACK SUPPORT BLOCK group (2) (each) . **X92F**

93F—Supporting Beam 93F1
bolt (2) ..... **15** .. 93F2
SUPPORTING BEAM group **X93F**

94F—Supporting-beam Bracket (right) 94F1F *
bolt (2) ..... **129** .. 94F2
spring pin ..... **855** .. 94F3
SUPPORTING-BEAM BRACKET group **X94F**
*94F1F is assembled with 94F3.

95F—Supporting-beam Bracket (left) .. 95F1F *
bolt (2) ..... **129** .. 95F2
spring pin ..... **859** .. 95F3
SUPPORTING-BEAM BRACKET group **X95F**
*95F1F is assembled with 95F3.

96F—Transfer Bar (rear) ..... b96F1F *
hanger (left) ..... 96F2F †
" spring pin ..... **864** .. 96F3
" (right) 96F4
" screw (4) ..... **241** .. 96F5
pin (bearing for a101F1F) a96F6
TRANSFER BAR group **Xb96F**
*b96F1F is assembled with a96F6.
†96F2F is assembled with 96F3.

Machines 8203 to 10482 inclusive, were equipped with the following part:
TRANSFER BAR (rear) a96F1
and omitted a96F6

Machines prior to 8203 were equipped with the following part:
TRANSFER BAR (rear) 96F1

96F—Transfer Bar (rear) (continued)
NOTE: To apply the improved parts to MACHINES prior to No. 10482 order b96F1F, b97F1, 104F1, 104F2 and 176F2.

97F—Transfer Bar (front) ..... a97F1 *
hanger (left) ..... 97F4F *
" spring pin ..... **864** .. 97F5
" (right) 97F6
screw (4) ..... **241** .. 97F7
TRANSFER BAR group **Xb97F**
*97F4F is assembled with 97F5.
*For 18 Point Attachment use b97F1

Machines 11820 and following are equipped with the following part:
TRANSFER-BAR-HANGER SPRING POST .. **8352** a97F10
and omit 97F5 (pin).

Machines 8203 to 10482 inclusive were equipped with the following parts:
spring clip a97F8
" " screw (2) ..... **2167** .. a97F9

Machines prior to 8203 were equipped with the following parts:
TRANSFER BAR (front) 97F1
pusher (3) 97F2
" screw (6) ..... **241** .. 97F3
and omitted a97F8 and a97F9.
NOTE: To apply the improved parts to MACHINES prior to No. 10482 order b96F1F, a97F1, 104F1, 104F2 and 176F2.

100F—Transfer-bar-hanger Rod 100F1
cotter (2) ..... **93** .. 100F2
TRANSFER-BAR-HANGER ROD group **X100F**

101F—Transfer-bar Operating Lever ... a101F1F *
bearing a101F6
extension a101F2
" rivet (2) ..... **7163** .. a101F3
adjusting screw ..... **2252** .. a101F4
" " nut ..... **35** .. a101F5
TRANSFER-BAR OPERATING LEVER group **Xa101F**
*a101F1F is assembled with a101F2 to a101F6. Order by the complete symbol Xa101F.

Machines prior to 8193 were equipped with the following part:
TRANSFER-BAR OPERATING LEVER 101F1
and omitted a101F2 to a101F6 inclusive.
NOTE: This part is obsolete and will no longer be furnished. Order instead the improved parts which provide an adjustment Order by the complete symbol Xa101F when ordering for the first time.

102F—Shear Yoke Adjusting Screw
(in 170F1F) ..... **136** .. 102F1
nut ..... **310** .. 102F2
SHEAR YOKE ADJUSTING SCREW group .. **X102F**

103F—Transfer - bar - hanger Spring
(long) ..... **623** .. a103F1

104F — Transfer - bar - hanger Spring
(short) ..... **6205** .. 104F1
plate (2) 104F2
TRANSFER-BAR-HANGER SPRING group ... **X104F**

Machines 11820 and following use in place of the above:
TRANSFER-BAR-HANGER SPRING .... **6287** .. a104F3

Machines 8203 to 10482 inclusive, were not equipped with group X104F, but used instead:
SPRING CLIP a97F8

151F—Cutter Bracket (for long leads) ... 151F1F *
stop pin (for shear yoke) 151F2
" " adjusting screw ..... **136** .. a151F3
" " " " lock nut **310** .. a151F4
CUTTER BRACKET group **X151F**
*151F1F is assembled with 151F2.

Machines prior to 8210 (except 8195, for which see above) were not equipped with:
CUTTER BRACKET
stop pin (for shear yoke) 151F2
" " adjusting screw ..... **136** .. a151F3
" " lock nut ..... **310** .. a151F4
NOTE: These parts provide an adjustable stop for the SHEAR YOKE a170F1F, and must be furnished together when ordered for the first time.

152F—Cutter-bracket Screw (for 151F1F, side) (2) ..... .29.. **152F1**

153F—Cutter-bracket Screw (for 151F1F, side) ..... .2216.. **153F1**

154F—Cutter-bracket Screw (for 151F1F, rear) (2) ..... .216.. **154F1**

155F—Cutter-bracket Screw (151F1 to c218F1) ..... .2246.. **155F1**

For Logotype Attachment see page 12.

156F—Cutter Bracket (for short leads) .. 156F1F *
bolt 156F2
" nut ..... .319.. 156F3
" washer ..... .49.. 156F4
cap 156F5
" bolt (2) ..... .111.. 156F6
" " washer (2) ..... .412.. 156F7
guide 156F8
" screw ..... .2225.. 156F9
" " washer ..... .419.. 156F10
shear blade (fixed) 156F11
" " adjusting screw 156F12
" " screw ..... .233.. 156F13
" " (movable) 156F14
" " carrier ..... 156F15F †
" " " pin 156F16
stop screw ..... .2215.. 156F17
CUTTER BRACKET group **X156F**
*156F1F is assembled with 156F5 to 156F14 inclusive, 156F15F and 156F17
†156F15F is assembled with 156F16.
NOTE: When casting and stacking non-fusion material see list under Style NR2G MOLDS on page 11.

For Logotype Attachment see page 12.

157F—Cutter Rock Shaft (short leads) .. 157F1F *
arm 157F2
" nut ..... .314.. 157F3
tooth (operating Shear Blade) ..... 157F4 *
CUTTER ROCK SHAFT group **X157F**
*157F1F is assembled with 157F4.

158F — Cutter - rock - shaft Retaining Spring **158F1**

159F — Cutter - rock - shaft - retaining - spring Screw (2) ..... .241.. **159F1**

160F—Galley Plate (for short leads) **b160F1**

161F—Galley-plate Screw (3) ..... .244.. **161F1**

162F—Main Bracket (for cutter and galley) ..... 162F1F *
set screw (for a78F4F) (2) ..... .116.. 162F2
spring pin (for 171F1) ..... .893.. 162F3
MAIN BRACKET group **X162F**
*162F1F is assembled with 162F3.

Machines prior to 9104 were equipped with the following part. See Note following 164F:

163F—Main-bracket Buffer (leather) .. **163F1**

Machines prior to 9104 were equipped with the following part:

164F—Main-bracket-buffer Screw (2) ..... .245.. **164F1**
NOTE: These parts are not required on later machines where the SHEAR YOKE a170F1F is finished to act as a stop for the SHEAR-BLADE GUIDE.

165F—Main-bracket Screw (side and top) (4) ..... .29.. **165F1**

166F—Main-bracket Screw (top rear) ..... .27.. **166F1**

167F—Shear-blade Operating Pin 167F1
cotter (2) ..... .93.. 167F2
washer ..... .45.. 167F3
SHEAR-BLADE OPERATING PIN group **X167F**

168F—Shear - blade - shoe - tube Spring ..... .6234.. 168F1
plate (2) 168F2
hook 168F3
SHEAR-BLADE-SHOE-TUBE SPRING group .. **X168F**

170F—Shear Yoke ..... a170F1F *
fulcrum pin 170F2
" " cotter (2) ..... .93.. 170F3
spring pin ..... .8121.. 170F4
SHEAR YOKE group **Xa170F**
*a170F1F is assembled with 170F4.

170F—Shear Yoke (continued)

Machines prior to 10461 were equipped with the following part:

SHEAR YOKE 170F1F
NOTE: This part is obsolete and will no longer be furnished. Order instead the improved part which is interchangeable with it. The improved part is altered to provide for cutting material up to and including 18 point.

171F—Shear-yoke Spring ..... .6265.. 171F1
plate (2) 171F2
SHEAR-YOKE SPRING group **X171F**

For Logotype Attachment see page 12.

172F—Stacker Bar (for short leads) ..... 172F1F *
spring 172F2
" rivet ..... .732.. 172F3
support 172F4
" clamp 172F5
" " screw ..... .113.. 172F6
" " " bevel nut 172F7
" rivet (2) ..... .7236.. 172F8
STACKER BAR group **X172F**
*172F1F is assembled with 172F2, 172F3, 172F4 and 172F8.

173F—Stacker-bar Adjusting Stand ... 173F1
adjusting screw (to a160F1F) ..... .255.. 173F2
" " " " 173F3
screw (4) ..... .27.. 173F4
STACKER-BAR ADJUSTING STAND group .. **X173F**

174F—Mold Unit Drawer 174F1
latch (2) 174F3
" screw (No. 6 flathead wood screw) (2) 174F4
runner (left) ..... 174F2F *
" (right) ..... 174F7F †
" bolt (4) ..... .118.. 174F5
" " washer (4) ..... .413.. 174F6
MOLD UNIT DRAWER group **X174F**
*174F2F is assembled with one each of 174F3 and 174F4.
†174F7F is assembled with one each of 174F3 and 174F4.

175F—Shear-blade-shoe-tube Friction Plate 175F1
screw ..... .2167.. 175F2
washer ..... .440.. 175F3
SHEAR-BLADE-SHOE-TUBE FRICTION PLATE group **X175F**

176F—Stacker Guard (left) **176F1**
(right) **176F2**

Machines prior to 10483 were not equipped with the following part:

STACKER GUARD (right) 176F2

177F—Guide Plate (for small point-sizes) 177F1
clamping collar 177F2
GUIDE PLATE group **X177F**

Machines prior to 8193 were not equipped with the following part:

GUIDE PLATE group X177F

178F—Guide Roller 178F1
bracket 178F2
eccentric shaft 178F3
" " handle ..... .865.. 178F4
" " cotter ..... .95.. 178F5
facing (rubber) 178F6
GUIDE ROLLER group **X178F**
GUIDE ROLLER grooved, special for column rule (6 point) a178F7
GUIDE ROLLER grooved, special for column rule (3 point and 6 point) a178F8

Machines prior to 8210 (except 8195, 8204, 8207 and 8208, for which see above) were not equipped with the following part:

GUIDE ROLLER group X178F

179F—Shear-blade-guide Stop **179F1**
NOTE: Use only with a207E16.

180F to 188F incl.—*(See page 13)*

221F—*(See page 13)*

Machines prior to 11820 were not equipped with the following group. To apply this improvement order X224F assembly:

222F—Shear-blade-shoe-tube Weight .. 222F1
plug 222F2
rod ..... 222F3F *
" washer 222F4
spring (inner) ..... .6147.. 222F5
" (outer) ..... .6146.. 222F6
tube ..... 222F7F †

222F—Shear-blade-shoe-tube Weight (continued)
tube bushing 222F8
" cap 222F9
SHEAR-BLADE-SHOE-TUBE WEIGHT group **X222F**
*222F3F is assembled with 222F4.
†222F7F is assembled with 222F8.

Machines prior to 11820 were not equipped with the following part:

223F—Shear - blade - shoe - tube Weight Cord **223F1**

Machines prior to 11820 were not equipped with the following group:

224F—Shear-blade-shoe-tube-weight-cord Sheave 224F1
post 224F2
" cotter ..... .95.. 224F3
" washer ..... .413.. 224F4
SHEAR-BLADE-SHOE-TUBE-WEIGHT-CORD SHEAVE group **X224F**

Section H

Mechanism for melting metal and forcing it into the Mold, also the supply and drain pipes to their connections with the parts they supply.

12H—Melting Pot (gas) a12H27
casing (outside) ..... a12H28H *
" end plate a12H29
" " " screw (2) ..... .227.. a12H30
" adjusting lug (right) a12H31
" " " (left) a12H32
" chimney support a12H33
" " " screw (2) .2198.. a12H34
" screw (3) ..... .220.. a12H38
" " washer (3) ..... .413.. a12H39
" (inside) ..... a12H35 *
screw (4) ..... .2198.. a12H36
magnesia packing a12H22
asbestos cement a12H24
MELTING POT group **Xa12H27**
*a12H28H is assembled with a12H27, a12H29 to a12H36 inclusive, a12H38 and a12H39. Order by the complete symbol Xa12H27.

Machines prior to 10621 were not equipped with the following parts:

MELTING POT
casing screw (3) ..... .220.. a12H38
" " washer (3) ..... .413.. a12H39
NOTE: These screws, which serve to hold the MELTING POT tightly to the SWING FRAME and prevent any possible shift, may be applied to any prior machine, equipped with MELTING POT Xa12H27 by tapping the necessary holes in the MELTING POT CASING.

Machines 8853 to 8864 inclusive, and 8920 to 9414 inclusive (except 9315 and 9334, for which see Xa12H27) were equipped with the following parts:

MELTING POT a12H
casing ..... a12H2H *
" bracket ..... a12H18 *
" " screw (2) ..... .216.. a12H19
" " dowel (2) ..... .58.. a12H20
" screw 12H8
" stud (2) a12H9
" " nut (2) ..... .310.. a12H10
" " washer (2) ..... .410.. a12H11
screw (4) ..... .2198.. a12H25
magnesia packing a12H22
asbestos cement a12H24
MELTING POT group **Xc12H**
*a12H2H is assembled with a12H, a12H18, a12H19, a12H20, 12H8, a12H9, a12H10, a12H11 and a12H25. Order by the complete symbol Xc12H.

Machines prior to 8920 (except 8853 to 8864 inclusive, for which see Xc12H) were equipped with the following parts:

MELTING POT 12H
casing (inside) ..... b12H1H *
" (outside) ..... 12H2 *
" plate (large) ..... 12H3H †
" " screw (8) ..... .223.. 12H4
" " (small) ..... 12H5 †
" " screw (3) ..... .222.. 12H6
" screw (right) 12H8
" stud (2) a12H9
" " nut (2) ..... .310.. a12H10
" " washer (2) ..... .410.. a12H11
MELTING POT group ..... **Xb12H** *

12H—Melting Pot (gas) (continued)

*b12H1H is assembled with 12H, 12H2, 12H3H, 12H4, 12H6, 12H8, a12H9 to a12H11. This part is obsolete and will no longer be furnished. Order instead Xc12H.

†12H3H is assembled with 12H5.

NOTE: To apply improved large POT to MACHINES 7845 and following requires in addition to the large POT Xa12H27 the large PUMP BODY, PISTON, NOZZLES, SWING FRAME TABLE, etc.

To apply improved large POT to MACHINES prior to 7845 requires in addition to the above the new style POT RAISING MECHANISM.

When ordering the improved large POT ASSEMBLY be sure to give machine number so that proper parts may be furnished.

13H—Melting-pot Chimney **13H**

Important information regarding NOZZLES is given on inside back cover.

14H—Nozzle, regular (5-8″ thread) (for Vented Tube Nozzles, see below)

All purpose	14H58
50-hole	c14H10
47-hole	c14H21
43-hole offset	d14H22
for 6-point fusion (No. 7)	c14H23
for 12-point fusion (No. 8)	c14H24
special for NR2F Molds (No. 4)	c14H19
special for decorative-end or plain column-width rules (No. 5)	c14H17
lock nut	a14H12

Machines prior to 9415 (except 9315 and 9334, for which see above) were equipped with small Pot and Pump which require the following parts:

NOZZLE (1-2″-13 thread)	
50-hole	b14H10
47-hole	b14H21
43-hole offset	c14H22
for 6-point fusion (No. 7)	b14H23
for 12-point fusion (No. 8)	b14H24
special for NR2F Molds (No. 4)	b14H19
special for decorative-end or plain column-width rules (No. 5)	b14H17
lock nut	a14H12

Vented Tube Nozzles (Monotype Metal)

2 point (No. 52 drill)	14H51
1 and 3 point (No. 50 drill)	14H53
4 point (No. 50 drill)	14H55
6 point (No. 50 drill)	14H39
12 and 18 point (No. 43 drill)	14H41
24 point (No. 38 drill)	14H42
36 point (No. 30 drill)	14H43

Vented Tube Nozzles (Linotype Metal)

2 point (No. 50 drill)	14H52
1 and 3 point (No. 49 drill)	14H54
4 point (No. 49 drill)	14H56
6 point (No. 47 drill)	14H40
12 and 18 point (No. 43 drill)	14H41
24 point (No. 30 drill)	14H43
36 point (No. 26 drill)	14H44

For decorative borders and other faces requiring special treatment. The drill size given first is for supply hole nearest vent hole.

Vented Tube Nozzles (Monotype Metal)

6 point (Nos. 53 and 52 drills)	14H47
12 point (Nos. 51 and 50 drills)	14H48
18 point (Nos. 49 and 44 drills)	14H49

Vented Tube Nozzles (Linotype Metal)

6 point (Nos. 50 and 50 drills)	14H57

The following are alike for all Material Making Machine Vented Tube Nozzles:

Nozzle Lock Nut	14H37
Nozzle Vented Tube	14H38
Nozzle Vented Tube Holder	68L1

15H—Nozzle Squaring Pin (5-8″-13 threads) **15H1**

Machines prior to 9415 unless equipped with the Melting Pot Xa12H27, use the following part:

NOZZLE SQUARING PIN (½″-13 threads)	15H

17H—Piston a17H13

handle	17H1H	*
" stem 850	17H2	*
" " nut 314	17H3	*
PISTON group	**Xa17H13**	

*17H1H is assembled with 17H2 and 17H3.

PISTON (.003″ oversize)	a17H14

Machines prior to 9415 (except 9315 and 9334, for which see above) were equipped with the following part:

PISTON	a17H11

NOTE: The PISTON a17H11 is 7-8″ diameter and is used with PUMP BODY X23H.

PISTON (.003″ oversize)	a17H12

18H—Piston Lever a18H

bearing (2)	a18H1
" screw (2)	a18H3
PISTON LEVER group	**Xa18H**

19H—Piston Operating Rod a19H

crosshead (lower, for a67H1)	a19H8
" dowel 51	19H2
" (upper, for a18H)	a19H3
" nut 330	19H4
" set screw (for Margach Feeder chain) 241	a19H9
" stud	a19H5
" " lock nut 315	a19H7
PISTON OPERATING ROD group	**Xa19H8**

Machines prior to 9220 (except 8051, 9059, 9195 and 9196, for which see above) were equipped with the following part:

PISTON OPERATING ROD crosshead (lower, for 67H1) and omitted a19H8.	19H1

To apply the improved parts order the following:

PISTON OPERATING ROD	a19H
crosshead (lower)	a19H8
" dowel 51	19H2
PUMP BODY SPRING 6227	a31H14
abutment (2)	a31H15
rod sleeve (2) (total 3)	a31H11

Machines prior to 9301, in addition to the above, require the following:

PUMP BELL CRANK	a67H1

NOTE: When this PUMP BELL crank is applied the number of GAG PLATES 81H1 should be reduced to two, if three are in use, discard one.

20H—Piston Spring

(outside) 6242	a20H9
(inside) 6159	a20H7
abutment	a20H10
rod	a20H11
" eye	a20H2
" " pin 847	20H3
" " " cotter 93	20H4
" nut (knurled)	a20H12
washer 465	a20H13
PISTON SPRING group	**Xa20H9**

Machines prior to 9415 (except 9315 and 9334, for which see above) were equipped with the following parts:

PISTON SPRING 6159	a20H7
rod	20H1
" eye	a20H2
" " pin 847	20H3
" " cotter 93	20H4
" nut 329	20H5
washer 46	a20H6
PISTON SPRING group	**Xa20H7**

23H—Pump Body ..... a23H20H *

bushing	a23H21	*
" pin	a23H22	*
piston stop plate (upper)	a23H23	
" " " (lower)	a23H24	
" " " stud (2)	a23H25	
" " " " nut (2) 314	a23H26	
" " " " sleeve (2)	a23H27	
plug (upper end of nozzle hole in arm)	a23H35	
" (bottom)	a23H28	
regulating screw	a23H33	
" " nut 324	a23H34	
valve	a23H29	
" plug (bottom)	a23H30	
" " (side)	a23H31	
" seat	a23H32	
PUMP BODY group	**Xa23H20**	

*a23H20H is assembled with a23H21 to a23H35 inclusive. Order by the complete symbol Xa23H20.

23H—Pump Body (continued)

NOTE: To equip Machines prior to 9415 with the PUMP BODY Xa23H20 requires that the improved large POT be applied to Machine, see Note under 12H.

Machines prior to 9415 (except 9315 and 9334, for which see above) were equipped with the following parts:

PUMP BODY	23HH	*
bearing (nozzle end for a26H5H)	23H1	
guide (and stop, for a17H11)	23H2	
" screw (2) 220	23H3	
plug (bottom)	23H4	
regulating screw (for flow of metal)	23H5	
valve	23H6	
PUMP BODY group	**X23H**	

*23HH is assembled with 23H1 to 23H6 inclusive. Order by the complete symbol X23H.

24H—Pump-body Lever a24H

bearing (2)	a24H1
" screw (2)	a24H3
PUMP-BODY LEVER group	**Xa24H**

25H—Pump-body Lifting Lever (piston end) a25H8

clamp screw 216	a25H9
fulcrum pin	a25H10
pin (pump bearing)	a25H11
set screw (for a25H10)	a25H12
" " (for a25H11)	a25H13
PUMP-BODY LIFTING LEVER group	**Xa25H8**

Machines prior to 9415 unless equipped with the large Pot Xa12H27 (except 9315 and 9334, for which see above) were equipped with the following parts:

PUMP-BODY LIFTING LEVER (piston end)	25H	
locating latch	25H1	
" " screw	25H2	
stand (front, on melting pot)	25H3	
" (rear, on melting pot)	25H4H	*
" cap	25H5	*
" " screw (2) 223	25H6	
" screw (5) 223	25H7	
PUMP-BODY LIFTING LEVER group	**X25H**	

*25H4H is assembled with 25H5 and 25H6.

26H—Pump-body Lifting Lever (nozzle end) ..... a26H6H *

fulcrum pin	a26H7
" " nut 329	a26H8
spring pin 831	a26H9
PUMP-BODY LIFTING LEVER group	**Xa26H6**

*a26H6H is assembled with a26H9.

Machines prior to 9415, unless equipped with the large Pot Xa12H27 (except 9315 and 9334, for which see above) were equipped with the following parts:

PUMP-BODY LIFTING LEVER (nozzle end)	a26H5H	*
pin (bearing for 23HH)	a26H3	
" nut 35	a26H4	
stud	26H1	
" nut 322	26H2	
PUMP-BODY LIFTING LEVER group	**Xa26H5**	

*a26H5H is assembled with a26H3 and a26H4.

28H—Pump-body Operating Rod a28H7

extension (bearing)	a28H8
" washer 49	a28H9
" " nut 320	a28H10
nut 321	a28H11
" lock nut 320	a28H12
washer (bearing for a26H6) 468	a28H13
" nut 320	a28H14
" " lock nut 320	a28H15
PUMP-BODY OPERATING ROD group	**Xa28H7**

Machines prior to 9415 unless equipped with the large Pot Xa12H27 (except 9315 and 9334, for which see above) were equipped with the following parts:

PUMP-BODY OPERATING ROD	a28H
extension (for 71H1)	a28H2
" pin 787	28H3
nut (3) 321	28H4
" lock nut (2) 320	28H5
PUMP-BODY OPERATING ROD group	**X28H**

29H—Pump-body-operating-rod Lever 29H

pin	29H1
" cotter 94	29H2
stand	29H3
PUMP-BODY-OPERATING-ROD LEVER group	**X29H**

Machines prior to 7845 were equipped with the following parts:

30H—Pump-body-operating-rod-lever-stand Support 30H
screw (2) ..... **29** .. 30H1
PUMP-BODY-OPERATING-ROD-LEVER-STAND SUPPORT group **X30H**

31H—Pump-body Spring ..... **6227** .. a31H14
abutment (2) a31H15
rod 31H1
" crosshead 31H2
" " eye a31H3
" " " nut ..... **3227** .. 31H4
" " " pin ..... **847** .. 31H5
" " " " cotter ..... **93** .. 31H6
" " " " " washer ..... **45** .. 31H7
" " stop 31H8
" " " nut ..... **329** .. 31H9
" nut (upper) ..... **329** .. 31H10
" sleeve (3) a31H11
" stop nut (bottom) (2) ..... **331** .. 31H13
PUMP-BODY SPRING group **Xa31H14**

Machines prior to 9220 (except 8051, 9059, 9195 and 9196, for which see above) were equipped with the following part:
PUMP-BODY SPRING ..... **645** .. 31H
and omitted a31H14, a31H15 and two of a31H11.

To apply the improved part order the following:
PISTON OPERATING ROD a19H
crosshead (lower) a19H8
" dowel ..... **51** .. 19H2
PUMP BODY SPRING ..... **6227** .. a31H14
abutment (2) a31H15
rod sleeve (2) total 3 ..... a31H11

Machines prior to 9301, in addition to the above, require the following:
PUMP BELL CRANK a67H1
NOTE: When this PUMP BELL CRANK is applied the number of GAG PLATES 81H1 should be reduced to two; if three are used discard one.

32H—Pump-lever Connecting Link (between a18H and a24H) 32H
pin (2) 32H1
" cotter (2) ..... **92** .. 32H2
plunger 32H3
" spring ..... **663** .. 32H4
PUMP-LEVER CONNECTING LINK group .. **X32H**

37H—Swing Frame b37H
bushing a37H11
table ..... a37H18H *
" adj. screw (for pot) (2) a37H19
" stud (for gas burner) a37H20
" " cotter ..... **92** .. a37H21
" spring post ..... **8114** .. a37H22
" bolt (3) ..... **15** .. a37H13
" set screw (for Margach feeder support) ..... **115** .. a37H23
worm shaft a37H14
" " nut (2) ..... **331** .. a37H15
" " thrust bearing a37H16
SWING FRAME group **Xa37H18**
*a37H18H is assembled with b37H, a37H13 and a37H22.

Machines 7845 to 9414 inclusive, unless equipped with large Pot Xa12H27 (except 9315 and 9334, for which see above) were equipped with the following parts:
SWING FRAME b37H
adjusting screw (long) ..... **119** .. a37H9
" " (short) (2) ..... **136** .. a37H10
bushing a37H11
guide block a37H17
" " screw (2) ..... **222** .. 37H2
handle ..... 37H3H *
" stem ..... **850** .. 37H4 *
" " nut ..... **314** .. 37H5 *
spring post ..... **883** .. a37H6
table ..... a37H12H †
" bolt (3) ..... **15** .. a37H13
worm shaft a37H14
" " nut (2) ..... **331** .. a37H15
" " thrust bearing a37H16
SWING FRAME group **Xa37H17**
*37H3H is assembled with 37H4 and 37H5.
†a37H12H is assembled with b37H and a37H13.

Machines prior to 7845, unless equipped with large pot Xa12H27, were equipped with the following parts:
SWING FRAME a37H
spring post ..... **831** .. 37H6
and omitted a37H11 to a37H16 incl.

39H—Swing-frame Rack a39H
nut ..... **327** .. a39H1
sleeve a39H4
washer ..... **45** .. a39H2
" (large) a39H5
SWING-FRAME RACK group **Xa39H**

Machines prior to 7845, unless equipped with large Pot Xa12H27, were equipped with the following parts:
SWING-FRAME SCREW a39H6
collar a39H7
nut ..... **329** .. 39H1
washer 39H2
" pin ..... **787** .. 39H3
washer (above 39H1) ..... **442** .. a39H8
and omitted a39H, a39H4 and a39H5.

Machines prior to 7845 were not equipped with the group Xb40H:
40H—Swing-frame-worm-shaft Crank b40HH *
handle 40H2
pin a40H3
SWING-FRAME-WORM-SHAFT CRANK group **Xb40H**
*b40HH is assembled with 40H2 and a40H3. Order by complete symbol Xb40H.

49H—Gas Hose 30″ (standard) **a49H1**

Machines prior to 9415 (except 9315 and 9334, for which see above) were equipped with the following part:
GAS HOSE 49H
and omitted a49H1.
GAS HOSE 40″ (extra for Gas Regulator) .. a49H2

55H—Gas Burner (3-burner) ..... b55H1H *
air regulating sleeve (3) 55H2
" " " screw (3) .... **2167** .. a55H3
" " " " washer (3) **449** 55H36
clamp a55H20
" nut ..... **319** .. a55H21
" washer ..... **49** .. a55H31
screen (3) a55H14
" disk (3) a55H33
" holder (3) a55H15
" " collar (3) a55H16
valve (3) ..... 55H4H †
" body ..... a55H9 ‡
" " bolt ..... **113** .. 55H10
" " pipe (gal. iron, 1-4″ x 3 3-4″) 55H17
" " " elbow (90°) ..... a55H34H ‡
" " " " nipple (gal. iron) . 55H19
" " plug (1-4″ iron) (3) 55H12
" " " (.190″, brass) (3) **2235** .. 55H11
" nozzle (3) a55H5
" nut (3) 55H7
" " lock nut (3) ..... **392** .. 55H8
" spring (3) ..... **6185** .. 55H6
GAS BURNER group **Xb55H34**
*b55H1H is assembled with 55H2, a55H3 and 55H36.
†55H4H (3) is assembled with a55H5 (3).
‡a55H34H is assembled with 55H4H, 55H6, 55H7, 55H8, 55H11, 55H12, 55H17, a55H9, 55H19 and 55H36.
NOTE: If natural gas is used, omit VALVES 55H4H and substitute VALVES a55H4H, which are assembled with a55H30.

Machines prior to 9415 (except 9315 and 9334, for which see above) were equipped with the following parts:
GAS BURNER
shield (on a37H) a55H27
" pin a55H28
support ..... a55H22 *
" bolt ..... a55H32H *
" " nut ..... **327** .. a55H29
" cotter ..... **92** .. a55H24
*a55H32H is assembled with a55H22.
NOTE: These parts are not required when the large MELTING POT is applied.

57H—Latch 57H1
plate a57H4
" screw (2) ..... **244** .. 57H3
LATCH group **Xa57H4**

58H—Latch Abutment 58H1
plate 58H2
" screw (2) ..... **244** .. 58H3
LATCH ABUTMENT group **X58H**

59H—Latch-abutment Spring .. **6107** .. **59H1**

Machines 8716, 8720, 8721, 8722, and 8733 to 9219 inclusive (except 8051, 9059, 9159 and 9196 for which see 59H1) were equipped with the following parts:
LATCH-ABUTMENT SPRING ..... **6108** .. a59H2
plate (2) a59H3

60H—Latch Pin ..... 60H1H *
cotter ..... **96** .. 60H2
plate ..... 60H3 *
" spring pin ..... **890** .. 60H4
" stop pin 60H5
LATCH PIN group **X60H**
*60H1H is assembled with 60H3, 60H4 and 60H5.

61H—Latch Spring ..... **6101** .. **61H1**

62H—Latch Stand 62H1
shaft ..... 62H2H *
" arm ..... 62H3 *
" nut ..... **327** .. 62H4
" " lock nut ..... **391** .. 62H5
" spring ..... **6236** .. a62H8
spring pin (for 59H1) ..... **892** .. 62H7
LATCH STAND group **Xa62H8**
*62H2H is assembled with 62H3.

66H—Pipe Bracket 66H1
overflow shield 66H8
nipple (1-2″ x 3 3-4″ lg.) 66H5
" (1-2″ x 2 1-2″ lg.) 66H6
plug 1-4″ 66H2
screw (2) ..... **216** .. 66H3
short nipple 1-4″ 66H4
tee 66H7
PIPE BRACKET group **X66H**

67H—Pump Bell Crank **a67H1**

Machines prior to 9301 were equipped with the following part:
PUMP BELL CRANK 67H1
NOTE: The improved part is interchangeable.

68H—Pump-bell-crank Connecting Rod 68H1
eye (front) 68H2
" gag block ..... 68H3H *
" " " pin a68H16
" " " fulcrum pin ..... **847** .. 68H4
" " " " " cotter ..... **93** .. 68H5
" " " handle ..... 68H6H †
" " " " stem ..... **850** .. 68H7 †
" " " " " nut ..... **314** .. 68H8 †
" " " " " " washer ... **410** .. a68H15
" " " spring clip 68H9
" lock nut ..... **324** .. 68H10
" (rear) 68H11
" lock nut ..... **325** .. 68H12
" pin 68H13
" " cotter (2) ..... **91** .. 68H14
PUMP-BELL-CRANK CONNECTING ROD group **X68H**
*68H3H is assembled with a68H16.
†68H6H is assembled with 68H7 and 68H8.

Machines prior to 8210 (except 8195, for which see above) were equipped with the following part:
PUMP-BELL-CRANK CONNECTING ROD GAG BLOCK ..... 68H3 *
and omitted a68H16.
*This part is obsolete and will no longer be furnished. Order instead the improved part 68H3H.

69H—Pump-bell-crank Shaft **69H1**

70H—Pump-bell-crank-shaft Set Screw **70H1**

71H—Pump-body Lifting Spring **6248** .. a71H1
plate (upper) 71H2
" (lower) a71H3
PUMP-BODY LIFTING SPRING group **Xa71H**

Machines prior to 9415, unless equipped with the large Pot Xa12H27 (except 9315 and 9334, for which see above), were equipped with the following parts:
PUMP-BODY LIFTING SPRING ..... **6232** .. 71H1
plate (2) 71H2
PUMP-BODY LIFTING SPRING group **X71H**

72H—Swing-frame Catch Bolt 72H1
nut ..... **328** .. 72H2
SWING-FRAME CATCH BOLT group **X72H**

Machines prior to 7845 were equipped with the following part:
73H—Swing-frame-screw Ratchet Wrench **73H1**
and omitted Xb40H.

74H—Water Pipe
(front) (1-4″ supply) a74H1
(rear) (1-4″ supply) a74H2
(front) (1-4″ drain) a74H3
(rear) (1-4″ drain) a74H4
cock (76EF with 1-8″ pipe thread for 1-4″ O.D. tubing) (2) 74H5
WATER PIPE group **Xa74H**
For additional parts for Logotype Attachment see page 12.

Machines prior to 10140 were equipped with the following parts:
WATER PIPE
(front) (1-4″ supply) 74H1
(rear) (1-4″ supply) 74H2
(front) (1-4″ drain) 74H3
(rear) (1-4″ drain) 74H4

To apply the improved parts, order the following:
WATER PIPE GROUP Xa74H
BOLSTER-ELBOW SLEEVE (6) 252E58
BOLSTER-ELBOW NUT (6) 252E59

75H—Water Cock (female ends, 1-4″ tap) **75H1**

76H—Pyrometer‡ **X76H**
‡Pyrometers are guaranteed for one year, provided they have not been opened or tampered with.

77H—Pyrometer Support **77H1**

78H — Pyrometer - thermocouple Support 78H1
arm a78H2
nut ..... **310** .. 78H3
washer ..... **413** .. 78H4
PYROMETER - THERMOCOUPLE SUPPORT group **Xa78H**

Machines prior to 9415, unless equipped with the large Pot Xa12H27 (except 9315 and 9334, for which see above), were equipped with the following part:
PYROMETER-THERMOCOUPLE SUPPORT ARM 78H2

Machines equipped with 1935 Style Electric Melting Pot equipment, omit 78H1 and use instead:
PYROMETER-THERMOCOUPLE SUPPORT 78H5
PYROMETER-THERMOCOUPLE SUPPORT group (includes 78H5, a78H2, 78H3, 78H4 .. X78H5

80H—Gas-hose Coupling 80H1
valve 80H2
GAS-HOSE COUPLING group **X80H**

81H—Latch Gag Plate (2) a81H1
stud bolt ..... **121** .. a81H2
" washer a81H4
LATCH GAG PLATE group **Xa81H**

Machines prior to 9415 (except 9315 and 9334, for which see above) were equipped with the following part:
LATCH GAG PLATE (2)* 81H1
*On Machines prior to 9301, 3 Latch Gag Plates were supplied. This quantity was reduced to 2 at the application of the improved Piston Operating-rod Crosshead a19H8

Machines prior to 9415, unless equipped with the large Pot Xa12H27 (except 9315 and 9334, see below), were not equipped with the following part:
86H—Pump-body-lifting-lever Adjusting Pin (eccentric) **86H1**

Machines prior to 9415, unless equipped with the large Pot Xa12H27 (except 9315 and 9334, see below), were not equipped with the following part:
87H—Pump-body-lifting-lever Adjusting Pin Shoe **87H1**

88H—Nozzle Shield ..... 88H1H *
arm (2) 88H2
" screw (2) ..... **2159** .. 88H3
NOZZLE SHIELD group **X88H**
*88H1H is assembled with 88H2 and 88H3. Order by complete symbol X88H.

Machines prior to April, 1939, were equipped with Nozzle Shield 252E53 and its four screws a252E54. This Nozzle Shield has been superseded by:
NOZZLE SHIELD X88H*
*This Nozzle Shield may be applied to any previous machine.

Molds for Material Maker

Style NR, for non-fusion in sizes 1 1-2 to 3-point inclusive, and for both fusion and non-fusion in sizes from 4 to 12 point. (.763″ is standard slug, .853″ is column rule, .888″ is rule and border.)

Style NR2F, for fusion only in sizes 1 1-2 to 3 point inclusive, and including 2-point .903″ high classified ad-rule Mold.

Style 1NR2F, for 1-point fusion leads, with special nozzle (c14H19). It is advisable to use Cutter Tripping Attachment (28CU) to operate cutter when using 1NR2F Molds at intervals of 24 casts in length.

Style NRA, for electrotype bearers and tie-up slugs in 12 point.

Style NRB, for rules with face flush on the side; non-fusion in sizes 1 1-2 to 3 point inclusive, and both fusion and non-fusion in sizes from 4 to 12 point.

Style NRB2F, for rules with face flush on the side; fusion only in sizes 1 1-2 to 3 point, inclusive.

Style NRD, for tapered column rules or slugs, large at bottom (standard is 5½ points thick at top and 6 points thick at bottom—requires 5½H9M20L12 Matrix; other point sizes and tapers to order).

Style NR2G, in .853″ or .888″ height for casting rule from regular Material Making Matrices and trimming it to make face flush to side—in sizes to 12 point. (Fusion 3 point and smaller, **Style NR2G2F.**) ‡

‡When casting and stacking non-fusion material, NR2G Molds require:
CENTER BRACKET (for short leads) a156F18
guide a156F19
" bolt a156F20
" " nut ..... **35** .. a156F21
shear blade (fixed) a156F22
" " screw ..... **113** .. a156F23
" " " washer ..... **412** .. a156F24

MOLD SCREWS (2 to 6 point) ..... **2385** ..
" " (7 to 18 point) ..... **2388** ..

Matrices for Material Maker
(Up to 12 point)

RULES (.030″ and .015″ drive, 2-point classified ad-rule) .....
(.065″ drive, including column rule) .....
(.043″ drive) .....
(above 12 point or made special for 18-point Mold) .....
DECORATIVE BORDERS .....
SINGLE-COLUMN DASHES .....
BRACES OR BRACKETS .....
BLANKS .....
RULES—Special depth drive (subject to approval of factory).

Flush-Side Matrices for Material Making Machine:
RULES (single-line face) .....
BLANKS .....
RULES (two-line face) .....
NOTE: Order MATRICES by symbol markings.

(ATTACHMENT 23CU)
Logotype Attachment

OBJECT: To provide means for operating an NRG Mold on the Material Making Machine.

NOTE: The NRG MOLD is designed to cast LOGOTYPES from Linotype or similar matrices. NRG MOLD must be ordered separately from this ATTACHMENT.

This Attachment consists of the following parts:
57A—Matrix Carrier ..... b57A4A *
plate ..... a57A8 *
" rivet (3) ..... **7162** .. a57A9
set screw ..... **2256** .. a57A6
" " abutment a57A7
" packing piece (positions matrices) (2) a57A5
MATRIX CARRIER group **Xb57A4**
*b57A4A is assembled with a57A6, a57A8 and a57A9.

58A—Matrix Carrier Pin ..... **7232** .. **58A1**

59A—Matrix Carrier Toggle Link (lower) **a59A1**

252E—Mold Holder
base plate ..... a252E67E *
nozzle seat (give thickness) 252E2
bolster (front) ..... a252E68E †
" clamp pin a252E10
" " " adjusting screw **2247** .. 252E11
" " " spring ..... **6155** .. 252E12
" elbows (2) ..... 252E13E ¶
" " sleeve (2) 252E58
" " nut (2) 252E59
" plug screw (5-16″) ..... **2249** .. 252E15
" screw (to base) (2) ..... **142** .. 252E16
" " washers (2) ..... **410** .. 252E17
" (rear) ..... a252E69E ‡
" elbow (2) ..... 252E19E §
" " sleeve (2) 252E60
" " nut (2) 252E61
" plug screw (¼″) (3) ..... **2248** .. 252E20
" plug screw (5-16″) ..... **2249** .. 252E21
" screws (to base) (2) ..... **142** .. 252E22
" " washers (2) ..... **410** .. 252E23
gage plate (2) a252E24
" " screw (4) ..... **241** .. a252E25
matrix guide (front) a252E70
" " screw (to base) (2) ... **142** .. 252E29
" " " washer (2) .... **410** .. 252E30
" " (rear) a252E71
" " screw (to base) (2) ... **142** .. 252E32
" " " washer (2) .... **410** .. 252E33
mold closure ..... b252E34 **
" " guide plate (left) ..... b252E35 **
" " " " (right) ..... c252E36 **
" " " " abutment (2) .. a252E62
" " " " " screw (4) **241** .. a252E63
" " " " clamp b252E56
" " " " " screw (2) **2166** .. a252E57
" " stop plate (rear) ..... b252E38E **
" " " " wedge a252E65
" " " " abutment 252E39
" " shoe 252E40
" " " screw (2) ..... **233** .. 252E41
through bolt (short) (4) ..... **141** .. 252E42
" " nut (4) ..... **314** .. 252E43
" " washer (8) ..... **466** .. 252E44
MOLD HOLDER group **Xa252E67**

*a252E67E is assembled with 252E2, 252E11, a252E10, 252E16, 252E17, 252E22, 252E23, a252E24, a252E25, 252E29, 252E12, 252E30, 252E32, 252E33, b252E38E, 252E39 to 252E44 inc., b252E56, a252E57, a252E62, a252-E63, a252E65, a252E68E, a252E69E, a252E70, a252E71. Order by the complete symbol Xa252E67.

†a252E68E is assembled with 252E15 and 252E13E.

¶252E13E is assembled with 252E58 and 252E59.

‡a252E69E is assembled with 252E21 and 252E19E.

§252E19E is assembled with 252E60 and 252E61.

**b252E38E consists of b252E34, b252E35, c252E36 and a252E38.
The right or left GUIDE PLATES, c252-E36 and b252E35, cannot be furnished separately from the ASSEMBLY.
If an individual CLOSURE, b252E34, or STOP PLATE, a252E38, is wanted be sure to give width and thickness of old part to four decimal places.
Machines prior to Feb. 1939 were equipped with STOP PLATE ASSEMBLY a252E-38E including CLOSURE a252E34, and the new parts cannot be applied to those machines unless the new MOLD HOLDER c252E1E is applied or the old MOLD-HOLDER BASE PLATE b252E1E is altered at our factory.

NOTE: Because efficient cooling is essential it is advisable to return to our factory Bolsters in which the waterways have become clogged for cleaning and re-grinding.

Machines prior to April, 1939, were equipped with Nozzle Shield 252E53 and its four screws a252E54. This Nozzle Shield has been superseded by:
NOZZLE SHIELD X88H*
*This Nozzle Shield may be applied to any previous machine, provided Nozzle Seat Shield 252E53 is taken off.

156F—Cutter Bracket (for short leads).. a156F18
guide..... a156F19
" bolt..... a156F20
" " nut.....**35**.. a156F21
" " washer.....**419**.. 156F10
shear blade (fixed)..... a156F22
" " screw.....**113**.. a156F23
" " " washer.....**412**.. a156F24
" " (movable)..... 156F14
" " carrier..... a156F15F *
" " " pin..... 156F16
stop screw.....**2215**.. 156F17
CUTTER BRACKET group.....**Xa156F18**
*a156F15F is assembled with 156F16.

157F—Cutter Rock Shaft..... 157F1 *
tooth..... a157F4F *
*a157F4F is assembled with 157F1.

172F—Stacker Bar (for short leads)..... a172F9
packing piece..... a172F10
STACKER BAR group.....**Xa172F9**

14H—Nozzle No. 9 (5-8″) for Xa23H20.. **c14H27**
Machines prior to 9415 (except 9315 and 9334 for which see above) were equipped with the following part:
NOZZLE No. 9 (1-2″) for X23H..... **b14H27**

74H—Water Pipe Extension (front & rear) 1-4″ drain (2)..... a74H6
Union coupling 1-4″ with 13-32″ Hex. in middle (2)..... a74H7
" " sleeve (2)..... a74H8
" " nut (2)..... a74H9
WATER PIPE EXTENSION group (2) each.**Xa74H6**

25L—Gage (for Mold Blade stroke of 12 and 12 1-2 picas non-fusion)..... **a25L2**

Mold for Logotype Attachment

Style NRG, in .875″ height for casting Logotypes from slug machine matrices and trimming them in sizes to 12 point.

(ATTACHMENT 25CU)

18-Point Attachment

OBJECT: To provide for speed reduction and parts for casting 18-point material.

This attachment consists of the following parts:

200E—Belt Tightener Arm Spring Extension..... **a200E2**

252E—Matrix Guide (rear) (to position 12 point face on front side of 18 point body)..... **a252E74**

277E—Intermediate Pulley (2-step, 1 7-8″ Dia. and 1 1-2″ Dia.).. 277E1E *
bracket..... 277E2
" washer..... 277E8
oilless bushing..... 277E3
sprocket (28 teeth)..... 277E4 *
" pin.....**7161**.. 277E5
stud..... 277E6
" nut.....**326**.. 277E7
INTERMEDIATE PULLEY group.....**X277E**
*277E1E is assembled with 277E3, 277E4 and 277E5.

278E—Motor Pulley (Standard) (for 1150 r.p.m., 2-step, 2 3-4″ Dia. and 2″ Dia., for use with 20″ Dia. Pulley a253E2).. a278E5E *
sprocket (14 teeth)..... 278E2 *
" pin.....**7161**.. 278E3
set screw..... 278E4
*a278E5E is assembled with 278E2, 278E3 and 278E4.
NOTE: Special Pulleys for 18-Point Attachment.
MOTOR PULLEY (Special) (for 960 r.p.m., 2-step, 3 1-4″ Dia. and 2 3-8″ Dia.) (for Machines equipped with Pulley a253E2, 20″ Dia.)..... a278E6E *
sprocket (16 teeth)..... a278E7
*a278E6E is assembled with 278E3, 278E4 and a278E7.
MOTOR PULLEY (Special) (for 750 r.p.m., 2-step, 4 3-32″ Dia. and 3 1-16″ Dia.) (for Machines equipped with Pulley a253E2, 20″ Dia.)..... a278E8E *
sprocket (21 teeth)..... a278E9
*a278E8E is assembled with 278E3, 278E4 and a278E9.

278E—Motor Pulley (continued)
MOTOR PULLEY (Special) (for 1400 r.p.m., 2-step, 2 1-4″ Dia. and 1 5-8″ Dia.) (for Machines equipped with Pulley a253E2, 20″ Dia.)..... a278E10E *
*a278E10E is assembled with 278E3.
MOTOR PULLEY (Standard) (for 1150 r.p.m., 2-step, 1 7-8″ Dia. and 1 1-2″ Dia.) (for Machines equipped with Pulley 253E1, 2-step, 14″ and 15″ Dia.)..... 278E1E *
sprocket (14 teeth)..... 278E2
*278E1E is assembled with 278E2, 278E3 and 278E4.

279E—Roller Chain, 25″ long (Diamond Chain)..... **279E1**

14H—Nozzle (all purpose)..... **14H58**

69H—Pump Bell Crank and Intermediate Pulley Bracket Fulcrum Pin.. **a69H2**
collar..... **a69H3**
" set screw..... **a69H4**

In addition to the preceding parts, the following parts must be furnished if not already on the machine:

83F—Shear Blade..... **a83F3**

84F—Shear Blade Guide..... **a84F2**
and 170F1 altered to a170F1.

97F—Transfer Bar..... **b97F1**

On machines prior to 11897 it is necessary to furnish the following parts:

241E—Mold Closure Operating Rod Spring..... **a241E8**

244E—Pulley Guard..... **a244E5**

253E—Pulley (20″ diameter)..... **a253E2**

255E—Index Plate..... a255E1
screw (2).....**251**.. 255E2
INDEX PLATE group.....**Xa255E**

For cutting and stacking short lengths of 18-point fusion material the following parts are required:

156F—Cutter Bracket Shear Blade Carrier (for short leads)..... a156F15F *
pin..... 156F16
*a156F15F is assembled with 156F16,

157F—Cutter Rock Shaft..... 157F1 *
tooth..... a157F4F *
*a157F4F is assembled with 157F1.

Molds for 18-Point Attachment

Style 14NRA and 18NRA for slugs (.763″ or other ordinary slug height) or base height (.853″).

Style 14NRA2G and 18NRA2G, to cast rules with bevel overhanging and trimmed to make flush side face.

Style 14NRAG and 18NRAG, for Logotype height (.875″) to cast with bevel overhanging and trimmed flush.

Matrices for 18-Point Attachment

STANDARD RULE MATRICES, 12 point and smaller, can be used on MOLDS up to 18 point, inclusive.
SPECIAL RULE MATRICES for 18 point are made to order.

(ATTACHMENT 27CU)

36-Point Attachment

OBJECT: To provide for the casting of Material up to 36 point.

The operating parts of the 18-Point Attachment (except a252E74, 14H58, a83F3, and a84F2 are required, if not already on the Machine, in addition to the following parts:

57A—Matrix Carrier..... a57A10A *
plate (2)..... 57A2 *
" rivet (3).....**7180**.. 57A3
filler piece (2)..... A57A11
" " rivets (4).....**7206**.. A57A12
MATRIX CARRIER group.....**Xa57A10** +
*a57A10A is assembled with 57A2, 57A3, A57A11 and A57A12. Order by the complete symbol Xa57A10.

201E—Cam Lever Stand Clamping Block..... **a201E5**
screw (2).....**111**.. **a201E6**

207E—Cutter-cam Lever (pawl)..... a207E17
finger..... a207E18
" screw (2).....**241**.. a207E19

237E—Mold Blade Operating Rod Coupling..... **a237E18**

252E—Mold Holder
base plate..... a252E77E †
" " nozzle seat (give thickness)... 252E2
" " screw (to main stand) (4)..**144** 252E3
" " " washer (4).....**412**.. 252E4
" " " (to bracket 241E2) (2) **145** 252E5
" " " washer (2).....**412**.. 252E6
bolster (front)..... a252E79E ‡
" bushing (for clamp pin)..... 252E9
" clamp pin..... a252E86
" " " adjusting screw..... a252E87
" " " spring.....**6155**.. 252E12
" elbow (2)..... 252E13E §
" " sleeve (2)..... 252E58
" " " nut (2)..... 252E59
" plug screw ¼″ (3).....**2248**.. 252E14
" " " ⅝″ (2).....**2249**.. 252E15
" screw (to base) (2).....**142**.. 252E16
" " washer (2).....**410**.. 252E17
" (rear)..... a252E88E ¶
" elbow (2)..... 252E19E ††
" " sleeve (2)..... 252E60
" " " nut (2)..... 252E61
" plug screw ¼″ (3).....**2248**.. 252E20
" " " ⅝″ (2).....**2249**.. 252E21
" screw (to base) (2).....**142**.. 252E22
" " washer (2).....**410**.. 252E23
gage plate (2)..... a252E89
" " screw (4).....**241**.. a252E25
matrix guide (front)..... a252E80
" " screw (to base) (2)..**142**.. 252E29
" " " washer (2)....**410**.. 252E30
" " (rear)..... a252E81
" " screw (to base) (2)..**142**.. 252E32
" " " washer (2)....**410**.. 252E33
mold closure..... a252E82
" " guide plate (left)..... a252E83
" " " " (right)..... a252E84
" " " " abutment (2).. a252E62
" " " " " screw (4) **241**.. a252E63
" " " " clamp..... b252E56
" " " " " screw (2) ..**2166**.. a252E57
" " stop plate (rear)..... a252E85E ‡‡
" " " " wedge..... a252E65
" " " " abutment..... 252E39
" " shoe..... a252E90
" " " screw (2).....**233**.. 252E41
through bolt (short) (2).....**143**.. 252E45
" " nut (2).....**314**.. 252E43
" " washer (4).....**466**.. 252E44
" " (long) (2).....**155**.. 252E78
" " nut (2).....**314**.. 252E46
" " washer (4).....**466**.. 252E47
thrust bar (2)..... 252E48
" " adjusting screw (2)..... 252E49
" " " " lock nut (2) ..**310**.. 252E50
MOLD HOLDER group.....**Xa252E77**

†a252E77E is assembled with 252E2, 252-E12, 252E16, 252E17, 252E22, 252E23, a252E25, 252E29, 252E30, 252E32, 252E33, 252E39, 252E41, 252E43, 252-E44 to 252E50 inclusive, b252E56, a252-E57, a252E62, a252E63, a252E65, 252-E78 to a252E90 inclusive.
‡a252E79E is assembled with 252E9, 252E-13E, 252E14 and 252E15.
§252E13E is assembled with 252E58 and 252E59.
¶a252E88E is assembled with 252E19E, 252E20 and 252E21.
††252E19E is assembled with 252E60 and 252E61.
‡‡a252E85E consists of a252E82, a252E83, a252E84 and a252E85. The right or left Guide Plates, a252E84 and a252E83 cannot be furnished separately from the Assembly. If an individual Closure a252-E82, or Stop Plate a252E85 is wanted, be sure to give width and thickness of old part to four decimal places.
NOTE: Because efficient cooling is essential it is advisable to return to our factory Bolsters in which the waterways have become clogged for cleaning and regrinding.

160F—Galley Plate (for short leads)..... **a160F4**

180F—Counter

(block)..... 180F1
" screw (2).....**227**.. 180F2
disk..... 180F3F †
" set screw.....**2360**.. 180F4
" " " wrench.....**8303**.. 180F26
" spring (drag).....**6256**.. 180F5
" " friction plug..... 180F24
" trip button..... 180F6
ratchet..... 180F7F ‡
" friction pin..... 180F25
" shaft..... 180F8
" " nut.....**315**.. 180F9
" " washer.....**480**.. 180F10
" trip button..... 180F11
ratchet pawl..... 180F12
" " fulcrum screw..... 180F13
" " lever..... 180F14
" " " operating link..... 180F15
" " " " " screw.... 180F16
guide roller..... 180F17
" " eccentric shaft..... 180F18
" " " " nut.....**314**.. 180F19
" " " " washer..**410**.. 180F20
" " " " handle..**865**.. 180F21
" " " " cotter....**95**.. 180F22
" " facing (rubber)..... 180F23
COUNTER group.....**X180F**

†180F3F is assembled with 180F6.
‡180F7F is assembled with 180F11.

181F — Cutter - cam - lever - pawl Trip Lever..... 181F1
fulcrum..... 181F2
" set screw.....**2297**.. 181F7
" pin..... 181F3
" " cotter.....**97**.. 181F6
spring.....**670**.. 181F4
" plunger..... 181F5
CUTTER-CAM-LEVER-PAWL TRIP LEVER group.....**X181F**

182F—Galley..... 182F1
stiffener bar (2)..... 182F2
support bar (2)..... 182F3
" " screw (4).....**133**.. 182F4
screw (2).....**244**.. 182F5
" (3).....**233**.. 182F6
GALLEY group.....**X182F**

183F—Support (for long strips)..... 183F1
adjusting screw..... 183F2
" " bracket..... 183F3
" " " screw (2)..**2208**.. 183F4
screw (2).....**2208**.. 183F5
SUPPORT group.....**X183F**

184F—Knife Blade (front)..... a184F1
bracket..... a184F2F †
bracket adjusting screw (to a160F4) (2)**255** 184F8
" " " (" ") (2) 184F9
" screw (4).....**119**.. 184F3
" " washer (4).....**415**.. 184F4
screw (2).....**238**.. a184F5
guard..... 184F6
" screw (2).....**241**.. 184F7
KNIFE BLADE group.....**X184F**

†a184F2F is assembled with a184F1, 184F5 to 184F9 inclusive.

185F—Material Guide..... 185F1
screw.....**233**.. 185F2
" washer.....**420**.. 185F3
MATERIAL GUIDE group.....**X185F**

186F—Clamp-pin Auxiliary Pressure Lever..... a186F1
pressure screw.....**2252**.. 186F2
" " nut.....**35**.. 186F3
pin..... 186F4
" (left)..... 186F5
bracket..... a186F6
" screw.....**172**.. a186F14
" " washer.....**413**.. a186F15
spring (inner).....**6284**.. 186F7
" (outer).....**6285**.. 186F16
" rod..... 186F8
" " connecting eye..... 186F9
" " nut (3).....**310**.. 186F10
" " washer (2).....**413**.. 186F11
" " bracket..... 186F12
" " " screw.....**122**.. 186F13
CLAMP-PIN AUXILIARY PRESSURE LEVER group.....**X186F**

Machines prior to Nov. 1939 were equipped with the following parts:

CLAMP-PIN AUXILIARY PRESSURE LEVER.. 186F1
bracket..... 186F6
" screw.....**238**.. 186F14
" " washer.....**420**.. 186F15

187F—Mold-blade Gag Block..... 187F1
screw (2).....**241**.. 187F2
" washer (2).....**440**.. 187F3
lever..... 187F4
" fulcrum screw..... 187F5
" lockout screw.....**2252**.. 187F22
" " " nut.....**35**.. 187F23
" bracket..... 187F6
" " screw (2).....**222**.. 187F7
" " " collar (2)..... 187F8
" " support stud..... 187F20
" " " " nut.....**310**.. 187F21
" bell crank..... 187F9
" " " fulcrum screw..... 187F10
" " " rod..... 187F11
" " " " eye..... 187F12
" " " " " nut.....**35**.. 187F13
" " " " " pin..... 187F14
" " " " " " cotter (2)..**95**.. 187F15
" " " " trip block..... 187F16
" " " " " " set screw **2360** 187F17
" " " " " " set screw wrench.....**8303**.. 187F24
lever bell crank rod bracket..... 187F18
" " " " " screw (4) **246**.. 187F19
MOLD-BLADE GAG BLOCK group.....**X187F**

188F—Stacker Bar..... 188F1
arm..... 188F2F †
" pin..... 188F3
" screw.....**241**.. 188F4
knife arm..... 188F5F ‡
" " packing piece (non-fusion).... 188F17
" " pin..... 188F6
" " screw (2).....**241**.. 188F7
base plate..... 188F8
operating lever (2)..... 188F9
" " washer (4)..... 188F16
" " fulcrum pin (2)..... 188F10
" " " " nut (2) **319**.. 188F11
" " spring (2).....**6281**.. 188F12
" " " post (2)....**880**.. 188F13
" " " " (2)..... 188F14
" " " " nut (2).**310**.. 188F15
STACKER BAR group.....**X188F**

†188F2F is assembled with 188F3.
‡188F5F is assembled with 188F6.

14H—Nozzle

for 24-point Monotype metal 14H42
for 24-point Linotype metal or 36-point Monotype metal..... 14H43
for 36-point Linotype metal..... 14H44
lock nut..... 14H37
vent tube..... 14H38
vent tube holding tool..... 68L1

67L—Screwdriver (hollow for a252E87).. **67L1**

On machines prior to 11897 it is necessary to furnish the following part:

238E—Mold-blade Spring Box Spring
spring (inside).....**6282**.. a238E9

Mold for 36-Point Attachment

Style NR2A, for base material 24, 30 and 36 Point. One size and height in each mold.

Matrices for 36-Point Attachment

Blank Matrices (for base material) for 24, 30 and 36 point (one for each point size and height.

Rule Matrices (for rules and electrotype bearers) for 24, 30 and 36 point (one for each point size and face).

(ATTACHMENT 28CU)

Cutter Tripping Attachment

OBJECT: To cause the CUTTER to operate at intervals of 24 revolutions of the MACHINE, thus cutting the product 24 "casts" in length.

221F—Cutter Tripping
ratchet wheel..... 221F1
" " bushing..... 221F2
" " friction spring..... 221F3
" " " collar..... 221F4
" " pawl..... 221F5
" " " carrier..... 221F6
" " " " retaining plate.. 221F7
" " " " " " screw (2) **244**.. 221F8
" " " " stand..... 221F9

221F—Cutter Tripping (continued)
ratchet wheel pawl carrier stand key (2).. 221F10
" " " " " " screw (2) **245**.. 221F11
" " " " tooth abutment. 221F12
" " " " " " screw **2251**.. 221F13
" " " fulcrum pin..... 221F14
" " " spring..... 221F15
" " " " post..... 221F16
" " " trip cam..... 221F17
" " " " " screw (3) **2160** 221F18
trip finger..... 221F19
CUTTER TRIPPING group.....**X221F**

Electric Melting Pot

OBJECT: To use electricity for heating the metal in the melting pot.

Electric Melting Pot—4400 watts (1948 style) complete with Partlow temperature control and Control Box for automatic temperature control. Furnished for 125, 208 or 250 volts, direct or alternating current and any standard cycles up to 60 inclusive as specified by the purchaser. (60 cycle in stock, lower cycles to order). When ordering complete Pots or renewal parts ALWAYS GIVE COMPLETE ELECTRICAL SPECIFICATIONS.

12H—Melting Pot (4400 watts)..... a12H37H *
casing..... 12H70
" plate (bottom)..... 12H71
" " screw (6).....**2203**.. a12H15
" end plate..... a12H29
" " " screw (2).....**227**.. a12H30
" adjusting lug (rear)..... a12H31
" " " (front)..... a12H32
" screw (bottom) (3).....**220**.. a12H38
" " washer (3).....**413**.. a12H39
screw (4).....**2198**.. a12H36
heating unit (right) (specify voltage).... 12H73H †
" " (left) (" ")... 12H74H ‡
" " support (front) (2)..... 12H75
" " " (rear) (2)..... 12H76
" " " screw (4)..... 12H77
" " clamp (front) (2)..... 12H78
" " " (rear) (2)..... 12H81
" " " screw (8)..... 12H82
" " terminal box 12H83
" " " " screw (3) **2200** 12H84
name plate (4400 watts)..... a12H56
" " screw (2).....**251**.. a12H57
shield..... 12H85H ‖
" top..... 12H86
" strap..... 12H87
" screw (2).....**223**.. 12H88
temperature control bulb socket..... a12H58
" " " " screw... a12H59
" " " " support. 12H89
" " " " " " ..screw 12H90
control box..... a12H60H §
" " screw (to a12H62) (2) a12H61
" " bracket..... a12H62
" " " set screw..... a12H63
connector (¾")..... 12H91
" (angle, ¾")..... a12H64
conduit..... 12H72
wire..... a12H66
asbestos rope gasket..... a12H23
insulating powder..... a12H67
glue..... a12H68
asbestos paper..... a12H69

*a12H37H is assembled with a12H15, a12-H23, a12H29, a12H32, a12H36, a12H38, a12H39, a12H56, a12H57, a12H58, a12-H59, a12H64, a12H66 to a12H69 incl., 12H70 to 12H72 incl., 12H73H, 12H-74H, 12H77, 12H83 to 12H91 incl.

†12H73H is assembled with 12H58, a12-H59, 12H75, 12H76, 12H78, 12H81, 12H82, 12H89 and 12H90.

‡12H74H is assembled with 12H75, 12H76, 12H78, 12H81 and 12H82.

§a12H60H is assembled with a12H61 to a12H63 inclusive.

‖12H85H is assembled with 12H86 and 12H87.

Partlow temperature control..... 71L *
mercury element (14")..... 71L2

*We can supply the mercury element. For any other repairs on the Partlow temperature control contact The Partlow Corp., 2 Campion Road, New Hartford, New York.

Renewal Parts for Control Box — Cutler Hammer No.

contactor (4 pole) size 1 (25 amps.)
for AC controller (item 2) ... C84-3387
for DC controller (item 16) ... C84-3387
stationary contacts (8) ... 21-368
movable contacts (4) ... 4221-4
heat insulator (4) ... 56-907
movable contact springs (4) ... 69-194
copper strip (DC only) ... 1319-64
shunt (DC only) ... 919-2017

Coil

for 125 volts 25 cycles AC ... 9-464-17
" " " 50 " " ... 9-464-5
" " " 60 " " ... 9-464-1
" 250 " 25 " " ... 9-464-18
" " " 50 " " ... 9-464-6
" " " 60 " " ... 9-464-2
" 125 " DC ... 9-498-5
" 250 " " ... 9-498-6

Resistance Units

for 125 volts 25 cycles (E-H resis.) ... 57-377-6
" " " 50 " " " ... 57-377-6
" " " 60 " " " ... 57-377-6
" 250 " 25 " " " ... 57-377-7
" " " 50 " " " ... 57-377-7
" " " 60 " " " ... 57-377-7
" 125 " DC " (A-C " ... 57-377-9
" " " " " (E-H " ... 57-377-7
" 250 " " " (A-C " ... 57-377-15
" " " " " (E-H " ... 57-377-9

NOTE: Machines from 1935 to 1948 were equipped with a combination control panel and dynamic thermometer and the a12H37H Melting Pot. When ordering renewal parts ALWAYS GIVE COMPLETE ELECTRICAL SPECIFICATIONS.

Renewal parts for this combination control panel are as follows:

Dynamic Thermometer — Cutler Hammer No.

operating coil ... 28-82
adjustable contact screw (2) ... 23-1032
contact clip ... 23-1033
terminal block (2) ... 17-647
" bracket ... 79-520
block ... 17-643
terminal screw (3) ... 811-7250
clamping screw (2) ... 911-3812F1
adjusting screw ... 11-360
bearing plate ... 20-125
post ... 18-212
bearing block assembly ... 41-103-2
hair pin pointer ... 69-391
spring ... 969-1206J
spring ... 969-464
toggle switch ... 61533-4

Contactor No. 531

(Electric pot 1935 to 1938 used contactor No. 366. This has been discontinued.)
for AC ... 10-453-8
for DC ... 10-453-11
stationary contacts (8) ... 21-368
movable contacts (4) ... 4221-4
heat insulator (4) ... 56-907
movable contact spring (4) ... 69-194
copper strip (DC only) ... 1319-64
shunt (DC only) ... 916-2017

Coils for No. 366 or 531 Contactor

125 volt 25 cycle AC (A-B) ... 9-464-17
" " 50 " " " ... 9-464-5
" " 60 " " " ... 9-464-1
250 " 25 " " " ... 9-464-18
" " 50 " " " ... 9-464-6
" " 60 " " " ... 9-464-2
125 " DC (A-B) ... 9-498-2
250 " " " ... 9-498-3

Relay No. 508

for AC ... 10-286-4
for DC ... 10-286-14

Coil

125 volt 25 cycle AC ... 9-642-30
" " 50 " " ... 9-642-16
" " 60 " " ... 9-642-16
250 " 25 " " ... 9-642-29
" " 50 " " ... 9-642-35
" " 60 " " ... 9-642-35
125 " DC ... 9-642-19
250 " " ... 9-642-23
Resistance unit (used on all controllers) A-B
125 volt 25 cycle AC ... 57-180
250 " " " " ... 57-185
125 " 50 " " ... 57-177
250 " " " " ... 57-183

Coil (continued)

124 volt 60 cycle A-C ... 57-176
250 " " " " ... 57-181
125 " DC ... 57-180
250 " " ... 57-185
Resistance unit (used on DC controller only) C-D.
125 volt DC ... 57-175
250 " " ... 57-178
Resistance unit (used on DC controller only) E-F.
125 volt DC ... 57-179
250 " " ... 57-180

NOTE: Machines prior to 1935 were equipped with the 1922 style ELECTRIC MELTING POT. This style POT is no longer furnished. Repair parts for this style POT will be furnished as long as available. The 1948 style POT can be applied in place of the 1922 style POT without any other change, except that machines prior to 7845 would require the improved large POT equipment if not already on machine.

Miscellaneous Supplies

AUTOMATIC HEAT CONTROL for gas ... a55L1L *
hose ... a49H2
bracket ... 55L2
" shield ... 55L5
" screw (2) ... **2223** ... 55L6
*a55L1L is assembled with 55L2, 55L5 and 55L6.
AUTOMATIC METAL FEEDER (Margach) with one mold.
AUTOMATIC METAL FEEDER (Star) without mold.
AUTOMATIC METAL FEEDER INGOT MOLD
WATER-COOLED MOLDS FOR AUTOMATIC METAL FEEDER INGOTS; set of 4 or set of 6 (split eye).
MOTOR PULLEYS (for 18 or 36 point, see attachment 25CU).

For machines equipped with Pulley a253E2 (20" Dia.)

MOTOR PULLEY (Standard) (for 1150 r.p.m., 2-step, 2 3-4" Dia., and 2" Dia., 3-4" bore) ... a27L1L *
set screw ... 27L3
MOTOR PULLEY group ... **Xa27L**
*a27L1L is assembled with 27L3. Order by the complete symbol Xa27L.

For machines equipped with Pulley a253E2 (20" Dia.)

MOTOR PULLEY (Special) (for 960 r.p.m., 2-step, 3 1-4" Dia. and 2 3-8" Dia., 3-4" bore) ... a27L2L *
set screw ... 27L3
MOTOR PULLEY group ... **Xa27L2**
*a27L2L is assembled with 27L3. Order by the complete symbol Xa27L2.

For machines equipped with Pulley a253E2 (20" Dia.)

MOTOR PULLEY (Special) (for 750 r.p.m., 2-step, 4 3-32" Dia. and 3 1-16" Dia.) a27L7L *
set screw ... 27L3
MOTOR PULLEY group ... **Xa27L7**
*a27L7L is assembled with 27L3. Order by the complete symbol Xa27L7.

For machines equipped with Pulley 253E1 (2-step, 14" and 15" Dia.)

MOTOR PULLEY (Standard) (for 1150 r.p.m., 2-step, 1 7-8" Dia. and 1 1-2" Dia., 3-4" bore) ... 27L1L *
set screw ... 27L3
MOTOR PULLEY group ... **X27L**
*27L1L is assembled with 27L3. Order by the complete symbol X27L.

For machines equipped with Pulley 253E1 (2-step, 14" and 15" Dia.)

MOTOR PULLEY (Special) (for 960 r.p.m., 2-step, 2 1-4" Dia. and 1 25-32" Dia., 3-4" bore) ... 27L2L *
set screw ... 27L3
MOTOR PULLEY group ... **X27L2**
*27L2L is assembled with 27L3. Order by the complete symbol X27L2.

Miscellaneous Supplies (continued)

For machines equipped with Pulley 253E1 (2-step, 14" and 15" Dia.)

MOTOR PULLEY (Special) (for 860 r.p.m., 2-step, 2 9-16" Dia. and 2" Dia., 3-4" bore) ... a27L6L *
set screw ... 27L3
MOTOR PULLEY group ... **Xa27L6**
*a27L6L is assembled with 27L3. Order by the complete symbol Xa27L6.

For machines equipped with Pulley 253E1 (2-step, 14" and 15" Dia.)

MOTOR PULLEY (Special) (for 800 r.p.m., 2-step, 2 23-32" Dia. and 2 5-32" Dia., 1" bore) ... 27L5L *
set screw ... 27L3
MOTOR PULLEY group ... **X27L5**
*27L5L is assembled with 27L3. Order by the complete symbol X27L5.

For machines equipped with Pulley 253E1 (2-step, 14" and 15" Dia.)

MOTOR PULLEY (Special) (for 750 r.p.m., 2-step, 3" Dia. and 2 5-16" Dia., 3-4" bore) ... a27L8L *
set screw ... 27L3
MOTOR PULLEY group ... **Xa27L8**
*a27L8L is assembled with 27L3. Order by the complete symbol Xa27L8.

MOTOR BELT, 63" x 1 1-4" endless ...
" " 75" x 1 3-8" endless ...
" " 77" x 1 3-8" endless ...
MATERIAL MAKING MACHINE INSTRUCTION BOOK
OIL, RULE MOLD: A very special oil which exhaustive tests have proved to be the most satisfactory lubricant for all our Continuous Strip Molds, and all Molds casting cored type and material. No other lubricant will preserve the Molds and give so good a product. Sold in 2 gallon* containers.
*Also furnished in 30 gallon drums.
OIL, TYPE MOLD: A suitable oil for lubricating the Material Making Machine. Sold in 2 gallon containers only.
Box for NR and NRA Mold ...
" " NRG and NR2G Mold ...
" " 24, 30 and 36 Point Mold ...

Tools for Material Making Machines:

SCREWDRIVERS
6" x 5-16" ... 22L6
10" x 3-8" ... 22L7
7 1-2" x 1-4" ... 22L3
hollow (for a252E87) ... 67L1
WRENCHES
No. 81 (1 1-16") ...
No. 83 (13-32" x 1-2") ...
No. 84 (5-8" x 3-4") ...
No. 85 (13-16" x 7-8") ...
No. 810 (9-32" x 5-16") ...
No. 828 (Pin, 60° bend) ...
No. 8118 (Set Screw) ...
No. 8113 (Speed) ...
LADLE, SMALL FOR MELTING POT ...
GAGE (for Mold Blade stroke) (standard fusion) ... a25L1
GAGE (for Mold Blade stroke of 12 and 12 1-2 picas non-fusion only) ... a25L2
MOLD CLEANING ROD ... 26L1
NOZZLE VENT TUBE HOLDING TOOL ... 68L1
NOZZLE SQUARING PIN (5-8" - 13 threads) ... 15H1
OIL CAN (large) ... 70L3
" " (medium) ... 70L2
PLIERS, PIPE, 10" ...
SKIMMER, SMALL, FOR METAL POT ... X8L
HAND TAP (5-8" - 13 threads) (for cleaning nozzle threads in pump body) ...
DRILL, FOR PUMP ARM (1-4") ... 9L1
" " " (5-16") ... 9L2
" No. 16, FOR NOZZLE ...
" 3-16", FOR NOZZLE ...
" No. 43, FOR NOZZLE ...
" " 47, FOR NOZZLE ...
" " 50, FOR NOZZLE ...
EYE-GLASS ... a23L17
FILE 6" HAND SMOOTH FLAT ...
" 4" NARROW PILLAR ...
PLIERS, LONG FLAT NOSE (5") ...
PUNCH (1-16") ...
" (1-8") ...
TWEEZERS ...
NOZZLE SETTING GAGE ... X32L

Waiting for Inspiration, rushing things in reliance upon Inspiration, and all the rest of it, are a lazy man's habits. Get the bones of the work well into your head, and the tools well into your hand, and get on with your job, and the Inspiration will come to you: *if you're worth a tinker's damn as an artist, that is!*

BEMBO, 405

Waiting for Inspiration, rushing things in reliance upon Inspiration, and all the rest of it, are a lazy man's habits. Get the bones of the work well into your head, and the tools well into your hand, and get on with your job, and the Inspiration will come to you: *if you're worth a tinker's damn as an artist, that is!*

BULMER, 462

Waiting for Inspiration, rushing things in reliance upon Inspiration, and all the rest of it, are a lazy man's habits. Get the bones of the work well into your head, and the tools well into your hand, and get on with your job, and the Inspiration will come to you: *if you're worth a tinker's damn as an artist, that is!*

DEEPDENE, 315

monotype . . . sets *better*. . . prints *better*. . . looks *better*. . .

Waiting for Inspiration, rushing things in reliance upon Inspiration, and all the rest of it, are a lazy man's habits. Get the bones of the work well into your head, and the tools well into your hand, and get on with your job, and the Inspiration will come to you: *if you're worth a tinker's damn as an artist, that is!*

FOURNIER, 403

Waiting for Inspiration, rushing things in reliance upon Inspiration, and all the rest of it, are a lazy man's habits. Get the bones of the work well into your head, and the tools well into your hand, and get on with your job, and the Inspiration will come to you: *if you're worth a tinker's damn as an artist, that is!*

JANSON, 401

VALIANT, 412

Waiting for Inspiration, rushing things in reliance upon Inspiration, and all the rest of it, are a lazy man's habits. Get the bones of the work well into your head, and the tools well into your hand, and get on with your job, and the Inspiration will come to you: if you're worth a tinker's damn as an artist, that is!

Complete specimens of these types and the 20th Century Series shown overleaf will be sent on request

AMERICA'S

most complete

CONTEMPORARY

TYPE SERIES:

monotype

20th Century

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ABCDEFGHIJKLMNOPQRSTUVWXYZ&
$1234567890

20th Century Light, 606

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ABCDEFGHIJKLMNOPQRSTUVWXYZ&
$1234567890

20th Century Light Italic, 6061

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ABCDEFGHIJKLMNOPQRSTUVWXYZ&
$1234567890

20th Century Medium, 605

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ABCDEFGHIJKLMNOPQRSTUVWXYZ&
$1234567890

20th Century Medium Italic, 6051

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ABCDEFGHIJKLMNOPQRSTUVWXYZ&
$1234567890

20th Century Bold, 604

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ABCDEFGHIJKLMNOPQRSTUVWXYZ&
$1234567890

20th Century Bold Italic, 6041

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ABCDEFGHIJKLMNOPQRSTUVWXYZ&
$1234567890

20th Century Extrabold, 603

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ&
$1234567890

20th Century Extrabold Italic, 6031

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ&
$1234567890

20th Century Ultrabold, 609

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ABCDEFGHIJKLMNOPQRSTUVWXYZ&
$1234567890

20th Century Ultrabold Italic, 6091

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ABCDEFGHIJKLMNOPQRSTUVWXYZ&
$1234567890

20th Century Medium Condensed, 608

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ABCDEFGHIJKLMNOPQRSTUVWXYZ&
$1234567890

20th Century Medium Condensed Italic, 6081

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ABCDEFGHIJKLMNOPQRSTUVWXYZ&
$1234567890

20th Century Extrabold Condensed, 607

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ABCDEFGHIJKLMNOPQRSTUVWXYZ&
$1234567890

20th Century Extrabold Condensed Italic, 6071

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ&
$1234567890

20th Century Ultrabold Condensed, 610

MATERIAL MAKING MACHINE NOZZLE INFORMATION

POINT SIZE	PRODUCT	CAST IN PICAS	SPEED IN R.P.M.	BELT & GEAR PLATE IV	TEMP. OF METAL	RECOMMENDED NOZZLES§ (2nd choice in parenthesis) (Complete list in Parts List)
1	Continuous Strip Leads—Low or High	6 to 8	100 to 128	10 to 12	600 to 725	14H58
1½	Continuous Strip Leads—Low or High	6 to 8	100 to 128	10 to 12	600 to 725	14H58
	Continuous Strip Rules	6	100 to 128	10 to 12	600 to 725	14H58
2	Continuous Strip Leads—Low or High	6 to 8	100 to 128	10 to 12	600 to 700	14H58
	Continuous Strip Rules and Borders	6	100 to 128	10 to 12	600 to 700	14H58
	Cut-off Dashes	10 to 15	40 to 70	4 to 7	600 to 700	14H58 (c14H17)
	Column Width Leads—Low or High	10 to 15	40 to 70	4 to 7	600 to 700	14H58 (c14H17)
6	Continuous Strip Slugs—Low or High	6 to 8½	60 to 90	6 to 9	575 to 650	14H58
	Continuous Strip Rules	6	60 to 80	6 to 8	575 to 650	14H58
	Continuous Strip Column Rules	6	60 to 80	6 to 8	575 to 650	14H58
	Continuous Strip Borders	6	60 to 70	6 to 7	575 to 650	14H58 (14H47)
	Cut-off Dashes and Logotypes	10 to 15	40 to 60	4 to 6	575 to 650	14H58 (c14H17)
	Corner Piece Cut-off Dashes	10 to 15	40 to 60	4 to 6	575 to 650	14H58 (c14H17)
	Column Width Slugs—Low or High	10 to 15	40 to 60	4 to 6	575 to 650	14H58 (c14H17)
12	Continuous Strip Slugs—Low or High	6 to 8½	40 to 60	4 to 6	575 to 625	14H58‡
	Continuous Strip Rules	6	40 to 60	4 to 6	575 to 625	14H58‡
	Continuous Strip Borders	6	40 to 60	4 to 6	575 to 625	14H58‡ (c14H48)
	Cut-off Dashes and Logotypes	10 to 15	30 to 40	3 to 4	575 to 625	14H58‡ (c14H17)
	Column Width Slugs—Low or High	10 to 15	30 to 40	3 to 4	575 to 625	14H58‡ (c14H17)
18	Continuous Strip Slugs—Low or High	6	18 to 25	*	575 to 625	14H58‡ (14H41)
	Continuous Strip Rules	6	18 to 25	*	575 to 625	14H58‡ (14H41)
	Continuous Strip Borders	6	14 to 25	*	575 to 625	14H58‡ (14H49)
24	Continuous Strip Slugs—Low or High	6	14 to 18	†	575 to 625	14H43 (14H42)
	Continuous Strip Rules	6	14 to 18	†	575 to 625	14H43 (14H42)
36	Continuous Strip Slugs—Low or High	6	14 to 18	†	575 to 625	14H44 (14H43)
	Continuous Strip Rules	6	14 to 18	†	575 to 625	14H44 (14H43)

*Requires 18 Point Attachment.

†Requires 36 Point Attachment.

‡May require enlarging supply hole in tip of NOZZLE.

§NOZZLES: In general, the NOZZLE 14H58 will take care of all point sizes from 1 point to 18 point inclusive. The size of the hole in the tip is No. 50 drill and for the larger point sizes this may have to be enlarged a little to obtain the best results. Linotype metal usually requires a slightly larger hole than Monotype metal. Do not make the hole to big. The hole in the tip of this NOZZLE is made offset so that it can be brought central under the closure opening by turning the NOZZLE. To use this NOZZLE, set the closure opening to match the point size and position of the casting cavity in 1, 1½, and 2 point molds. On larger molds make the closure opening 2 points and center it point ways under the casting cavity. Then turn Nozzle 14H58 until the offset hole in its tip comes central under the closure opening. To check this setting examine the product cast and if one side shows a fan-shaped appearance turn the NOZZLE to bring the hole nearer that side and repeat until both sides look alike. For 24, 30, and 36 point, special NOZZLES as listed are usually required. Other NOZZLES listed in the parts list are older styles.

THESE *precision* PRODUCTS ARE MANUFACTURED, DISTRIBUTED AND *serviced* BY THE LANSTON MONOTYPE MACHINE COMPANY:

THE MONOTYPE TYPESETTING MACHINE

. . . two units for quality machine type composition — the Monotype Keyboard and the Monotype Composition Caster.

THE MONOTYPE TYPE & RULE CASTER

. . . a display type casting machine, to which a strip-material-making attachment has been added. It may be purchased and operated as a type-caster only, if desired.

THE MONOTYPE-THOMPSON TYPECASTER

. . . a type-founding machine suitable for making type of highest quality from 6 to 48 point. Resources for the Thompson user include all Monotype matrices from 6 to 48 point.

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. . . a unit for making display type, quads and spaces from 14 to 72 point inclusive and continuous strip furniture from 14 to 72 point.

THE MONOTYPE MATERIAL MAKER

. . . for making continuous strip rule, decorative borders, and spacing material. More than 200 rule designs and 100 decorative border designs are available.

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. . . the Aristocrat of Adding Machines is available in three models: an electric printing calculator with automatic electric direct subtraction, a hand operated printing calculator with direct subtraction and a hand operated figuring listing machine.

Complete descriptive literature can be obtained from any branch office or by writing direct.

LANSTON MONOTYPE MACHINE COMPANY

Twenty-fourth and Locust Streets, Philadelphia 3, Pennsylvania